




# 2000 AFMC RESERVE ANNUAL REPORT

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# *TABLE OF CONTENTS*

# AFMC AND AFRC: MISSION AND VISION

## AIR FORCE MATERIEL COMMAND:

AFMC's mission is to develop, acquire, and sustain aerospace power needed to defend the United States and its interests… today and tomorrow. An integral part of the Air Force war fighting team, AFMC contributes to affordable combat superiority, readiness and sustainability. Its combat support role touches every base, every weapon system and virtually every person in the Air Force.

The vision of AFMC is to be "the recognized leader for equipping and supporting America's aerospace force— the warfighter's first choice." The Air Force vision of "Global Vigilance, Reach, and Power" provides the foundation for the Materiel Command's formulation of its vision. AFMC will give their customers the capability to support our national security objectives and allow our people to fly and fight effectively. Their vision is to provide quality and timely systems for America's Air Force and to be the supplier of choice. Through the AFMC goals, they will fulfill their vision of supplying their customers with the tools and equipment needed for aerospace superiority.

AFMC goals are to satisfy their customers' needs in war and peace, enable our people to excel, sustain technological superiority, enhance the excellence of our business practices, and operate quality installations.

## AIR FORCE RESERVE COMMAND:

AFRC's mission is to provide Citizen Airmen to defend the United States and protect its interests through aerospace power. AFRC supports the Air Force mission to defend the United States through control and exploitation of air and space by providing global reach and global power. The AFRC plays an integral role in the day-to-day Air Force mission and is not a force held in reserve for possible war or contingency operations.

AFRC's vision is "Citizen Airmen fully engaged in global vigilance, reach and power." AFRC is composed of dedicated citizen airmen helping to build the world's most respected air and space force. There are more than 70,000 Air Force reservists assigned to the Selected reserve Program. Approximately 60,000 reservists are assigned to specific reserve units which train one weekend a month and 15 additional days per year. More than 12,000 reservists are assigned to the Individual Mobilization Augmentee (IMA) Program; these members serve in specific wartime and peacetime positions, training on an individual basis.

AFMC has more than 2,100 IMAs – the single largest concentration of IMAs in the Air Force. According to AFMC Commander, Maj Gen James E. Sherrard III, Air Force reservists are an integral part of the active duty Air Force today. They are ready to deploy in response to worldwide contingencies, share test missions with the Air National Guard, and meet varied missions, including humanitarian relief.

# DEMOGRAPHICS: AFMC IMA FORCE NUMBERS AND LOCATIONS


- **Current AFMC IMA Force: 2,304**
- **Officer: 1,139**
- **Specialty Areas (Officer): Acquisition, Logistics, Civil Engineering, Scientific and Test Engineering**
- **Enlisted: 1,165**
- **Specialty Areas (Enlisted): Security Forces, Logistics, Civil Engineering, and other support areas**
- **Mandays Available:**
  - **Mobilization Augmentation: 52,488, varies with end-strength**
  - **Active Duty Mission Support: 59,900 days for Fiscal Year 2001(17,500 officer, 42,400 enlisted); varies each year**

# AFMC MISSION AREAS AND IMA SUPPORT

AFMC manages acquisition and sustainment programs for combat support through the work of several command units, including the Air Force Research Laboratory (AFRL), test centers, product centers, air logistic centers and specialty centers. IMAs are assigned to work in each of these critical mission areas.

AFMC's complex enterprise is managed under eight mission areas, a word change from 1999 when they were called business areas. It is a move "designed to show its commitment to supporting the war fighter with a more common terminology."

## AFMC MISSION AREA #1: SCIENCE AND TECHNOLOGY

**Science and technology discovers, develops, demonstrates and transitions affordable, integrated technologies that keep the United States Air Force the best in the world.**

### ROCKET SCIENTIST

1Lt Mark Henry, Air Force Research Laboratory (AFRL) Propulsion Directorate chemist at Edwards AFB, investigated and documented experimental methods and techniques for evaluating combustion products from the reaction of liquid monopropellants used for rocket propulsion. He placed monopropellant samples in various gas environments and attempted to achieve successful combustion reactions. He also evaluated alternate combustion initiation approaches, including magnesium ribbon strips coiled around the ignition wire.

### LAUNCH LAURELS

Capt Tammy Baker, assigned to AFRL Space Vehicles Directorate, completed a project to characterize the mission operations timeline for the XSS-10 satellite, based on ground station visibility and satellite constraints. Her in-depth analysis will enable mission operations teams to easily identify the best launch times, determine the length of the mission given a launch time, and assess how many different launch time scenarios need to be rehearsed.

### PRONTO PROTOTYPING

Capt Steve Lindsay, AFRL/VSSS, led initial prototyping efforts for the TechSat 21 ground and flight test bed. Using a pre-release version of the software toolkit, he familiarized himself with the development environment and quickly identified four major problems for the vendor to correct prior to system integration, saving costly troubleshooting. He quickly determined and distributed project assignments to civilian and contractor team members. Overall, he succeeded in advancing the first milestone of this critical project by over six weeks.

### ANTENNAnalysis

Applying knowledge acquired in his on-going doctoral studies at the University of Michigan, Maj Brian Fischer, AFRL Sensors Directorate, Wright-Patterson AFB, identified and refined an analysis technique that reduces required simulation time from 120 hours to two minutes on a standard personal computer. Additionally, his research demonstrated that high band DF may be improved through the use of surface mounted spiral antennas instead of the traditional long baseline "blade" antennas. Maj Fischer teamed with Dr. Stephen Schneider, to prepare a white paper proposal on the findings for the Defense Advanced Research Projects Agency.

### 'STA'ing POWER

Maj Bob Ware, AFRL Materials and Manufacturing Directorate joined members of OC-ALC, OO-ALC, and SA-ALC conducting a review of the Stabilizer Trim Actuator (STA) system after a fatal KC-135 mishap. While reworking STA ratchet gears, a large number of them were put at risk of hydrogen embrittlement due to improper baking procedures. Maj Ware performed an independent review of the OC-ALC manufacturing process and proposed a design change to the surface roughness of the gear's chrome plated friction surface. The STA review team, KC-135 chief engineer, and OC-ALC manufacturing community members unanimously accepted his recommendations.

**SIMULATOR ORCHESTRATOR**

Lt Col Rick Glitz, AFRL Human Effectiveness Directorate's Warfighter Training Research Division, spent countless hours perfecting F-16 flight simulator training at AFRL's flight simulator research facility at Mesa, Ariz. He developed new Crew Resource Management evaluation criteria for F-16 Distributed Mission Training under the direction of a senior researcher. Using the new criteria, he qualified 45 pilots on complex air-to-air engagements and captured his findings in a formal report.

**UP, UP, AND AWAY**

Lt Col Bill Clapp, AFRL/HE Senior IMA, participated in the successful launch of the first Minuteman II modified for orbital flight. While assigned to the AFRL Space Vehicle Directorate, he was instrumental in organizing and managing the main SMC Minotaur payload that carried four other small university satellites to orbit. The flight demonstrated the effectiveness of Multiple Payload Adapter concepts for launching multiple satellites from one platform.

**CUTTING YOUR RISK**

Maj Kevin Probst, AFRL Directed Energy Directorate, reviewed the Architecture and Affordability Study on Space-Based Laser (SBL) system concepts and their technology risks. He determined that the risk roll-up methodology was flawed and the underlying risk assessments were questionable based on his 25 years of experience in directed-energy weapon technologies and systems. Consequently, he reworked the risk assessment and roll-up, and provided SBL with more realistic estimates.

**A MODEL EMPLOYEE**

Lt Col Hank Happ, AFRL/DE, works in the esoteric field of magnetohydrodynamics codes. He analyzed the code and discovered a number of minor but extremely hard-to-find errors. Rectifying these errors will improve model fidelity and save an untold number of man-hours in the future.

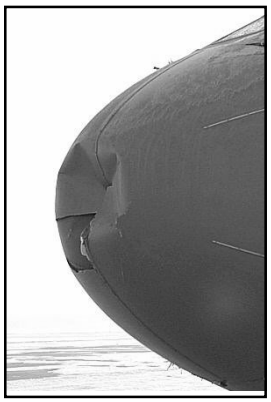
**GASSING UP**

TSgt Chad Harrison, an AFRL/PRRO IMA, traced every gaseous nitrogen (GN2) system connecting to the main cross-country supply line within the Edwards AFB's Propulsion Directorate test area. The complex GN2 distribution system represented over four decades of significant expansions and improvements that had never been documented on paper. TSgt Harrison worked with a Computer Aided Designer to produce an integrated diagram of the system.

**THE METRIC SYSTEM**

Lt Col Anne Fay, Project Officer, Air Plasma Ramparts Program (APRP), Multi-University Research Initiative (MURI) in AFRL's Air Force Office of Scientific Research's (AFOSR) Physics and Electronics Directorate, developed metrics to more effectively evaluate program participants and their achievement of APRP goals. She also developed project management and proposal evaluation guidelines for IMAs who work on other MURI programs.

ON STRIKE



In a paper presented to the 25th International Bird Strike Committee, Col Jeff Short, HQ AFRL/XP Senior IMA, noted progress in research originated several years ago by the Air Force. This research includes using infrared and radar to detect birds, as well as audible radar and low-power, laser devices for controlling birds. Collectively, these promising new approaches can be expected to reduce bird strike costs by at least half. Worldwide costs to civil and military aviation are estimated at $3 - $4 billion per year.

***Radome" birdstrike with Canada Geese on C-141 operating at Wright-Patterson AFB, Ohio. Unseen is the thousands of dollars damage to sensitive electronic systems contained on the aircraft.***

## CAN DO PLAN

Lt Col Luann Cutler, AFRL Munitions Directorate, developed the Ordnance Division's first formal business plan. The plan included a strategy for execution with respect to the technology goals, resource investment decisions, and strategic visions of the division. The business plan will be used as the model for the Munitions Directorate this year.

## TARGET PRACTICE

Lt Col David Calloway, AFRL/MNG, updated the Division's Ladar Image Processing software that preprocesses and identifies targets in imagery. With these updates, the Munitions Directorate can easily create filters, using computer-generated images as a training set, and apply them to Ladar imagery collected on the Eglin test range. Lt Col Calloway's work promises to provide a powerful tool for recognizing fixed and mobile ground targets.

## CONCEALED WEAPONS

Maj Don Lorey, AFRL/MNAC, completed the first phase of a multi-phase effort to model the effects of material properties on weapon performance. Using two, three-dimensional weapons modeling programs, he investigated the material properties of concrete and their effect on the depth of weapon penetration. The resulting analyses will be used to guide future weapon design.

## TEAM HAS ALGO"RHYTHM"

Capt Vince Underwood, AFRL/MNGI, worked as part of a newly formed team studying seeker algorithm development for ballistic missile interceptors. He analyzed the state-of-the-art seeker algorithms and provided recommendations for their use during boost-phase intercepts. The results of his analysis formed the baseline algorithm set for the ballistic missile interceptor seeker team.

## SUPPORTING ROLE

Maj Robert Fetner, AFRL/ML, managed ground support logistics during test flights of the Sensor Directorate's LADAR system. He scheduled use of the test complex; arranged delivery of targets; managed communications between aircraft, controllers and the test team; and provided technical direction to ensure that critical test parameters, such as laser performance, target condition and alignment, were acceptable. With the successful completion of these tests, researchers can now focus on optimizing image quality.

## JAMMING SESSION

Capt William Melvin, AFRL/SN, evaluated the impact of advanced jamming techniques on adaptive radar systems used to detect slow-moving and low radar cross section targets. He developed mathematical models describing the advanced jamming threat and devised metrics to characterize adaptive radar system performance loss due to such jamming. He also simulated an adaptive moving target indication radar operating against the advanced threat, and generated a series of operating performance curves. Finally, he identified various approaches for protecting adaptive radar systems from the jamming threat. Capt Melvin presented his findings to a national audience of electronic warfare experts at the 12th Annual Electronic Protection Technical Interchange Meeting in Atlanta, Georgia.

## TOXIC WASTE

TSgt Chad Harrison, AFRL/PRRO, co-led a team that successfully disposed of several toxic propellant systems at Edwards AFB. The Test Area was originally established to test the durability of oxidizers (Nitrogen Tetroxide and Chlorine Pentafluoride) and the hardware components that carry them into space. Over the years, these systems had begun to deteriorate to the point that action had to be taken to dispose of them. Using schematics and procedures he had developed, TSgt Harrison purged, disassembled and closed out six hazardous nitrogen tetroxide oxidizer systems. He accomplished the task with no other external resources or assistance, thereby saving the government thousands of dollars.

***TSgt Harrison is doing a rough cleaning / decontamination of the components removed.***

## EXPLAINING TRAINING

Col Susan Wilkerson, an IMA assigned to AFRL/DEX, drew on some of her civilian expertise to develop interactive, self-paced, computer-based training. She produced an executive overview that is now available on CD and on the program's web site. She also developed a syllabus for needed training and provided detailed instructions to assist future computer-based training authors and programmers. Her efforts saved the AF over $40,000.

## METEOR SHOWER POWER

Lt Col David Barnaby, AFRL/DESA, led an in-house experiment at Starfire Optical Range (SOR) to test the hypothesis that the atmospheric sodium layer is replenished by sodium from meteors. The team was tasked to observe persistent and bright meteor trails produced during the Leonid meteors, which were predicted to reach a 33-year peak rate. With only two days to get the experiment operational before the dry run, Maj Barnaby worked 36 hours straight. During the actual meteor shower, he was an outdoor meteor spotter, reporting meteor trail coordinates to the telescope operators. He doubled the number of trails ever spotted during a shower. *Sky and Telescope,* June 2000, reported some of the results of the experiment.

## CIRCUITRY RIDER

Maj John Wynia, AFRL/DES, designed, built, and implemented printed circuitry for several critical functions at the Starfire Optical Range. His circuitry used an imbedded system to automate the SOR's newest telescope dome. His design provided the controls to focus the secondary mirror on the 1.5-meter telescope, and facilitated the control of active optics. He also upgraded software for a high-voltage amplifier system that controls a deformable mirror, one of the key adaptive optics components for atmospheric compensation of lasers propagated into space.

## POD SQUAD

Maj Ken Wodke, an IMA assigned to AFRL/HECV, helped coordinate a series of flight tests of a prototype Polyplanar Optical Display (POD) for B-52 bombers. The technology would reduce power consumption and weight, and increase reliability and availability of mission-critical displays for the pilots, radar navigators, and electronic warfare operators. He also wrote a Technical Report to provide baseline documentation for all displays on the A-10 close air support aircraft.

## SPINE TINGLING

Capt Richard Friedman, an AFRL/HECP aerospace physiologist, demonstrated that muscle sensing of unused head muscles can be used to enhance pilot capabilities. Pilots whose four limbs are occupied with aircraft controls, and astronauts in EVA suits share a problem with victims of high spinal cord injuries. They all require additional means of manipulating devices to aid their task performance. Capt Friedman demonstrated that certain muscles of the head that have no known useful function can provide both amplitude- and frequency-modulated signals adequate for command purposes. Working with colleagues at AFRL/HECP, the Indiana University School of Medicine, and Brain Actuated Technologies, Inc., he demonstrated the use of these signals for both one- and two-dimensional control of an indicator on a computer screen. The initial signals and the results of a one-dimensional computer task study were published in the *Journal of Spinal Cord Medicine*.

## A VISION FOR EYESIGHT

Lt Col Ralph H. Hill, Jr., an IMA assigned to AFRL/HE at Brooks AFB, contributed to research work related to the laser photorefractive keratectomy (PRK) project. PRK is the new laser-based corrective eyesight procedure that is being considered for pilots. Lt Col Hill set up, analyzed, and characterized a photon-counting system to be used as a backup in a one-of-a-kind ocular haze meter being used in the PRK evaluation project.

## PAYROLL SIGNATURES

Maj Christopher Thomas, AFRL/SN, directed the collection of diagnostic signature measurements on B-2 aircraft. As technical lead, he coordinated flight line activities, supervised signature measurements and provided security for the data. He installed computational electromagnetics software on a Sensors Directorate system and performed scattering studies and analysis of the B-2 data.

## OPTICAL OPPORTUNITIES

Maj William Siskaninetz, an AFRL/SN IMA, conducted a comprehensive review of extant and proposed electro-optic programs in the Electro-Optics Division . An AFIT doctoral student, he applied his knowledge and experience in semiconductor device research and electro-optical systems to document numerous technical barriers and proposed solutions. Specifically, he identified opportunities for improved integration of systems engineers and device researchers; advocated collaborations with the Jet Propulsion Laboratory, leveraging technical advances in device integration; and proposed a 3–7 year material and device research program developing mid-infrared optoelectronic sources and sensors.

## ALL SYSTEMS ARE GO

AFRL/SN IMA, Lt Col Donald Weston, oversaw the specification, selection and qualification of a new plasma enhanced chemical vapor deposition (PECVD) system for silicon nitride and silicon dioxide dielectric films. Acquisition of such systems is infrequent and expensive, but in his civilian position, Lt Col Weston routinely acquires and uses such equipment. His leadership in acquiring the new PECVD system accelerated the acquisition decision-making process and installation, resulting in a system that was fully operational and "state of the art" in minimum time.

## TRACKING TECHNOLOGY TRANSFERS

Maj Ira Cooke, AFRL/VSE, initiated a study to improve the efficiency of the technology transfer process in the Space Vehicles Directorate. He interviewed directorate personnel to identify lessons learned from past research programs, and isolate common traits and processes in successful technology transfers. Maj Cooke used his civilian Lean Process knowledge to create work and research process improvements, thereby streamlining technology transfer from the lab to useful warfighter products.

## EYE OF THE STORM

Maj John Machuzak, AFRL/VSB, initiated a study with other VSBP team members to determine if there was a correlation between magnetic storms, which originate from the interaction of the earth's magnetic field with the solar wind, and the observation of ionospheric magnetic bubble events. The team evaluated Defense Meteorological Satellite Program (DMSP) data during three years of maximum solar activity. Following this analysis, Maj Machuzak's team submitted a paper to the *Journal of Geophysical Research* entitled, "DMSP observations of equatorial plasma bubbles in the topside ionosphere near solar maximum."

## SATELLITE SURVIVABILITY

Capt Michael Black, AFRL/VSS, directed efforts involving US and international agencies in developing multi-threat requirements for nuclear, laser and RF hardening of spacecraft. He supported the development of a NATO handbook for defining nuclear design requirements for NATO satellites, which represents a multi-national effort to address nuclear survivability issues for NATO satellite systems. Capt Black helped develop new performance requirements for the satellite laser threat warning system. In addition, he worked with representatives from Space Command, TENCAP, Space Warfare Center, and Space and Missile Center to address shortfalls in RF hardening efforts for both near-term needs and long-term needs.

***Figure 1. MSTRS Antenna***

## ANTENNA SIGNALS

While pursuing his master's degree in electrical engineering, 1Lt Eric Johnson, AFRL/VSS, developed computational electromagnetics software code for the antenna configuration for the Miniaturized Satellite Threat Reporting System (MSTRS). He simulated the class of issues that the contractor was dealing with in implementing their design for MSTRS. 1Lt Johnson demonstrated that the small ground plane around the three antennas had a significant impact on their ability to phase track.

**PARSIMONIOUS PAMPHLET**

AFRL/XP IMA 1Lt Brian Dietterick authored and coordinated AFRL Pamphlet 65-112, *Guidelines for Researching and Correcting UnLiquidated Obligations, Negative UnLiquidated Obligations and UnMatched Disbursements*. The pamphlet provides AFRL personnel with information crucial to avoiding Antideficiency Act (ADA) violations, preventing use of current year funds to pay prior year obligations, ensuring correct types of funds are obligated and reporting violations when they are discovered.

**PUTTING THE LID ON STORAGE PROBLEM**

CMSgt Mike Ballard, an IMA assigned to the Robins Metalbond and Composite Repair Section (WR-ALC/TINR), assembled a team of base IMAs to provide long-term support for a huge workload associated with the classification and storage of C-5 and C-141 lay-up molds and fixtures. Hundreds of these assets arrived at Robins virtually overnight due to the closure of Kelly AFB and the drawdown of the C-141. CMSgt Ballard proposed a support plan to address the work bottleneck, obtained headquarters approval and manday support, identified volunteers, and coordinated a work schedule. Thanks to the hard work of Robins IMAs, CMSgt James Wright, MSgt Tom Grabowski and SSgts John Boozman and Allen Simpson, the project is over 70% complete.

**SPACE WEATHERMAN**

Capt Dana Kopf , SMC Det 11, Peterson AFB, Colorado, produced a concept and requirements document to identify and outline AF and DoD needs for space weather measurement and modeling validation and verification. This capability currently does not exist and space missions are at risk until space weather forecasts are on par with terrestrial weather forecasting. Existing data and models are of unknown value since they cannot be validated, primarily because baseline metrics and models do not exist. Capt Kopf's document will be incorporated into a Statement of Work, followed by a formal request for proposal.

**VIRTUAL REALITY**

Majors Jeff Diehl and Greg Wilson, both of SMC Det 11, identified requirements, researched options, and provided recommendations for a new virtual office tool that should facilitate Det 11's Detachment Action Group (DAG). The DAG virtual office project should enable them to seize opportunities, maintain maximum reaction time to new requirements, and work optimally with SMC, OO-ALC, and AFMC. After evaluating several hundred commercial products, Majors Wilson and Diehl recommended an integrated toolset that would provide collaboration capabilities such as document retrieval, threaded discussions, and a central calendar.

**ODE TO CODE**

Capt Conrad Poelman, an SMC/TM IMA in the Airborne Laser System Program Office (SPO), completed several computer-related projects for the program. Most notably, he installed 3-D atmospheric analysis and display software on the SPO's platforms. This effort required writing new data input code to utilize existing data formats; setting up the SPO conference room so it could remotely interact with Battle Management software; and changing an optical turbulence predictor code running at the AF Combat Climatology Center.

***Capt Poelman***

***Col Garrett***

**HEAD OF THE CLASS**

Col Henry Garrett, Senior Reservist in SMC's Space Based Infrared SPO, has coalesced his experiences with AF and NASA missions into a 2-day course on the design of survivable spacecraft. During the last six months, he has taught the course to over 100 officers and civilian personnel assigned to SMC and AFRL. He also teaches the course commercially at a cost of $800 per person, which translates into a cost savings to the AF of $80,000 for this quarter alone. Following the presentation at AFRL, scientists directly applied course information to a space experiment under consideration.

### DESIGNING WOMEN (AND MEN)

Team Airborne Laser's IMA "show of force" at System Critical Design Review at Boeing Seattle was a great success! SMC's Col Eva Wallace, Majors Thomas LaValley and Eric Johnson, Capt Elbert Milton, 1Lt Salvador Rodriguez, Jr., and TSgt Shaunna Hunt presented the final weapon system configuration for the Program Definition and Risk Reduction aircraft currently undergoing modifications in Wichita, Kansas. Col Wallace briefed the SPD on financial concerns. As part of the Crew System Working Group, Maj LaValley addressed actual aircraft performance versus stated performance. Maj Johnson and TSgt Hunt, of the Maintenance Working Group, coordinated with Boeing and ACC logistics/maintenance personnel. They all briefed the Independent Review Team as to this design's maintainability and the supportability plan for test at Edwards.

### OASIS FACES

Maj Dean Peebels, ASC/FM produced a total acquisition cost estimate for a contractor proposed, multi-platform display system for the F-15 program resulting from Boeing's Open Avionics Systems Integration Study (OASIS). He identified and documented F-15-unique cost elements to be combined with contractor common costs. Furthermore, he provided cost estimating and Automated Cost Estimating-Integrated Tool model training to new financial analysts assigned to the F-15 financial management office. This expert analysis identified the best approach to aid ASC on a common aircraft display system and aided the organization by eliminating one full time position.

## AFMC MISSION AREA #2: INSTALLATIONS AND SUPPORT

**Installations and support sustains the missions and people at AFMC bases and deployed locations with quality facilities, environments and support services at the lowest possible cost.**

### SHOW OF FORCE

Several security forces IMAs from Wright-Patterson AFB performed significant roles in this year's AFMC Defender Challenge competition held at Eglin AFB. Col Rick Kulman, IMA to the Director of Security Forces, HQ AFMC, directed this year's competition. CMSgt Wendy Cocanour, SMSgts Tony Arledge and Mike Austin, MSgt Harry Hartunian, and TSgt James Gilley assisted with the design, set up, and operation of the three main competition areas of physical fitness, weapons proficiency, and ground tactics. This annual competition demonstrates the capabilities of our security forces and their readiness for contingencies.

### HAZARDOUS DUTY

Maj Don Woike, ASC/EN, reviewed, analyzed, and validated the ASC Subsystems SPO's Hazardous Materiel Reduction Plan Program (HMRPP) Needs. As part of the process, he compared past year's needs to potential year 2000 needs. Maj Woike then generated a validated SPO-level HMRPP Needs Summary document that will allow program managers to better allocate resources, manpower, time, priorities, and funding.

### REMEDIATION COMMENDATION

Lt Col Lester Palat, ASC/EN, provided engineering support as a member of the Environmental Compliance Assessment and Management Program (ECAMP) Team for remediation efforts at Air Force Plant 44, operated by Raytheon Company. He used specially constructed checklists to evaluate the following areas: cultural resources management; natural resources management; other environmental issues as documented in the National Environmental Policy Act; Noise Management Guidelines; and the Installation Restoration Program. Another member of the team, Lt Col Robert Bishop functioned as the Lead for Storage Tank and Petroleum, Oil and Lubricants protocols. Both colonels wrote detailed reports of their findings for inclusion in the final ECAMP report.

### EARTHMOVERS AND SHAKERS

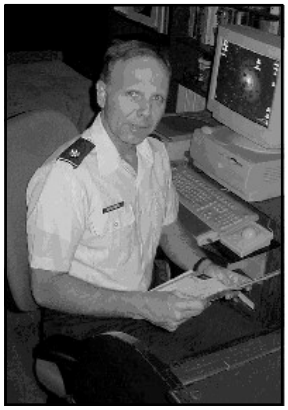
MSgt Michael Dodyk, ASC/EN, secured the cooperation and coordinated the work efforts of the Civil Engineering Flight from the 301st Fighter Wing, Naval Air Station Fort Worth Joint Requirements Board, Texas to perform an Engineering Site Layout of a former landfill near Air Force Plant 4. Thanks to his advanced planning, these reserve members undertook earthmoving operations to backfill the site and properly close it in accordance with Texas environmental regulatory requirements. During the operation, the reserve personnel received valuable hands-on-training in site layout and heavy equipment operations. MSgt Dodyk's efforts also resulted in significant cost savings to the AF.

**STAYING ON COURSE**

Maj John Greer wrote a Manufacturing Schedule Assessment Course and presented it to over 25 individuals in ASC/EN. He designed the course to teach new personnel how to do a Manufacturing Schedule Assessment using the appropriate tools. After reviewing course critiques, he recommended adding three new modules: industrial engineering analysis, manufacturing simulation and earned value. Maj Greer volunteered to prepare the engineering analysis module and oversee the production of the remaining two modules.

**TRANSITION MISSION**

Lt Cols Kim Plourde, Amos Poon, and Pat Saatzer, IMAs in the SMC Space Based Infrared Systems (SBIRS) Office's Defense Surveillance Program (DSP), are leading DSP's active-duty and civilian effort to transition over $10M in ground assets to the SBIRS High follow-on program. The three IMAs, all aerospace engineers in their civilian capacities, have chaired meetings with DSP and Aerospace personnel to develop a detailed plan and schedule for the transition. Their efforts help retain current on-line capability, reduce costs, and resolve a potentially major transition issue for the SBIRS program.



*Lt Col Plourde*

**INVESTING IN SECURITIES**

Capt Elaine Sersun, an IMA assigned to SMC Det 11, supported the transition of SMC Det 11/ESC Det 5 Centralized Integrated Support Facility from an open building to a secure building concept. She inspected the loading dock area and created new procedures to institute increased security. She also identified several changes to computer and personal security procedures to increase the control of equipment and persons entering and leaving the facility.

**TEMPORARY HIRE**

Maj Starla Carroll, an IMA with SMC's 61st ABG, served as Executive Protocol Officer for the Commander, US Strategic Command, Offutt AFB, for three months during the absence of the active duty Chief. She was the protocol officer for the first-ever Nuclear Summit for US STRATCOM, the visit of NATO Secretary General Lord Robertson, and the visit of Mr. Charles Cragin, Principle Deputy Secretary of Defense for Reserve Affairs. She also assisted with other events, including CAPSTONE and Russian Ambassador Ushakov's visit. Following that assignment, she completed a tour as Deputy Commander for the 30th Support Group, Vandenberg AFB for two months pending the arrival of the active duty Deputy Commander.

**TEAM PLAYER**

Lt Col Carl Brazelton, assigned to SMC's 61st Air Base Group, served as the Source Selection Evaluation Team chair for the contract renewal for Base Logistics. He led the team in reviewing and modifying the Request for Proposal and in establishing price and performance guidelines. A member of the Acquisition Strategy Panel, he analyzed a phase-in plan strategy, and reviewed the evaluation criteria and the Award Fee Plan.

**HEALTHY CHOICE**

Lt Col Robert Bishop served on the AFMC Environmental Compliance Assessment Management Program Team tasked to conduct an inspection of Wright-Patterson AFB. He functioned as Air Force Lead for the Natural Resources and Pesticide Management protocols. During the assessment, he identified a new wetland area adjacent to the Wright-Patterson AFB runway. The base immediately filled in the wetland to reduce the numbers of birds and ducks attracted to the area, thereby reducing the bird strike threat.

**ENMESHED IN PESHEs**

Maj Don Woike, ASC/EN, developed Programmatic Environmental, Safety, and Health Evaluations (PESHEs) supporting twenty separate programs. These PESHEs fulfill AF environmental program requirements and are established as "living" documents to help program managers track and develop environmental solutions for their programs. Capt Woike is presently researching information to develop a PESHE framework for eight additional programs.

## LAUDABLE AUDIT

Maj Reshi Constant from ASC's Comptroller Directorate conducted the annual payroll audit of the Non-Appropriated Funds Accounting Office Employee Payroll, the largest in the CONUS. She audited payroll registers against time and attendance cards, verifying information against supporting documents in employee's personnel records. Moreover, she verified internal controls and identified potential concerns. Corrective action is being taken to improve internal controls, improving accuracy of payments, timekeeping reporting and reducing costs.

## MANUAL LABOR

Maj Stephen Miley, an IMA in AFMC/PKP, wrote a Manual for Creating and Updating Guides. This quick-reading manual is posted on the AFMC/PK web page and provides a concise reference for the creation and maintenance of contracting-related guides. The manual will save time for action officers and drastically reduce the number of corrections required during coordination and approval of guidance documents.

## CASES CLOSED

Lt Col Faye Walden, an IMA assigned to AFMC/PKX in a special Defense Contract Management Agency assignment, provided invaluable support during the government migration to the Standard Procurement System and a uniform payment system for all DoD-issued contracts. Her in-depth knowledge of AF contracts prompted closure of over 138 contracts. Of those, 66 were for aircraft repair services valued in excess of $8.7M, and 72 for engineering services valued in excess of $1.5M. As closure occurred, Lt Col Walden executed modifications that de-obligated over $1M in excess funding. She also initiated closing actions on 14 additional aircraft and engine requirements type contracts with a value exceeding $82M.

## SQUARING AWAY INDUSTRY ROUNDTABLE

Lt Col Vincent Napoleon, AFMC/PKP, planned and executed a unique, first of its kind Industry Roundtable discussion between executives of various industry sectors and AF contracting professionals. Representatives discussed market analysis, supplier distribution practices, and the role of e-commerce in the supply chain management process. As a result, the Air Force is considering new methods for conducting market analysis and managing supplier relationships, potentially yielding substantial savings in the procurement of warfighter systems.

## NO PLAY DUE TO Y2K

Maj Bob Smith, Captains Tony Johnston and Jane Tallarico, CMSgt Harry Williams and MSgt Mary Whitehead, all of AFMC/XP, provided vital assistance to the AFMC operations office during the months leading up to and after the Y2K rollover. The IMA team participated in five real-world Y2K events, beginning in August 1999 and continuing through February 2000. In addition, they participated in several DoD-wide exercises. Each event required several days of 'round-the-clock HQ AFMC Battle Staff operations except for the primary event, the calendar year rollover, which lasted a week.

## THE WRITE STUFF

Capt Jane Tallarico, AFMC/XP, completed the rewrite of AFMC's War and Mobilization Plan, part I (WMP I). She assisted the WMP I command manager in writing and editing the main section and gathering the 28 annexes, 34 appendices and 5 tabs that were written by different HQ directorates. Capt Tallarico worked with the directorates to ensure content and format were accurate. She also assisted with the monumental task of formally coordinating all 28 annexes with their authoring directorates.

## ON TARGET

Maj Bob Smith, AFMC/XP, identified the need for a guide for deploying forces who carry weapons and ammunition. Utilizing his skills and knowledge as a pilot in the commercial airline industry, he spent several months researching materials to write a weapons user's guide. He talked to and met with representatives from AFMC base deployment offices, transportation offices, hazardous material specialists and representatives from major airlines.

## WAR LORE

Col Tony Perfilio, AFMC/XP, co-edited the AFMC report, *Air War Over Serbia: Aerospace Power In Operation Allied Force*. The 100-page report, garnered from the Command History Office and written with help from LG, detailed the unclassified contributions AFMC made to the successful Operation Allied Force campaign.

*Global Hawk*

### LANDING NEW GLOBAL HAWK UNIT

Maj Robert Steyer, Chief, Logistics Programs, 412 Logistics Support Squadron, Edwards AFB, led the team to present a logistics support briefing to the Global Hawk Unmanned Aerial Vehicle bed down team from HQ Air Combat Command. The presentation focused on Edwards' capacity to provide the facilities, capabilities, expertise and support services necessary to accommodate Global Hawk, a program valued at $100M.

### PAVING THE WAY

SrA James M. Harell II, an IMA assigned to the 78th Civil Engineering Squadron at Robins AFB, was selected to augment Expeditionary Aerospace Forces at Incirvik Air Base, Turkey. He paved the way as the first enlisted IMA to augment this EAF mission. SrA Harrell deployed in December 1999, and in the middle of his tour, asked to extend. In Invirvik, he was involved with the daily upkeep of the power production plant.

### OPENS MINDS TO CLOSURE

Capt Barbara Carson, OC-ALC Public Affairs, prepared the media and communities surrounding Tinker AFB for a yearlong closure of the main runway. Tinker planned to use the alternate runway while completely reconstructing the main runway, resulting in air traffic over neighborhoods that don't normally see or hear much air traffic. She prepared a briefing on the issue for local, state and national elected officials and their representatives, hosted by OC-ALC/CC. Capt Carson also organized and executed a public meeting for members of the communities surrounding Tinker to learn about the project, ask questions and meet with representatives from each of the flying units.

### RISKY BUSINESS

Col Charles Unice, Maj Joseph William, and Capt Delcy Palk of SMC/FM performed initial and follow-up risk mitigation assessments on the Systems Acquisition Management Support (SAMS) Complex. This is a new $100M building project at SMC that is planned as a replacement for the current office complex. The three officers refined the data inputs for the SAMS group acquisition meetings, updated the SAMS complex risk mitigation factors for the Statement of Objectives (SOO) and helped prepare a draft SOO for the SAMS complex.

### PAYING BIG DIVIDENDS

A new initiative, known as the Cooperative Partnership Program, encourages IMAs in the Robins AFB Comptroller Directorate to share their specialized talents in financial management-related activities with other Product Directorates. The FM IMAs assist on research projects and other short-term financial taskings that are languishing because of manning shortages or skill deficiencies. As an example, Maj Lynn Hume recently augmented the F-15 Production Division's Weapon System Control Center. He conducted an F-15 indirect material cost analysis and identified the root cause behind a 160% increase in bench stock costs over the past two years. Consequently, the Control Center took immediate corrective action, procedurally and fiscally. Maj Hume was later invited back to accomplish a sustainability/supportability verification assessment analysis of landing gear and emergency control system air ducting components for the F-15 aircraft and the decentralization initiative for F-15 bench stock. Since its inception, five directorates have requested to enter into a cooperative partnership alliance with FM.

### STRUCTURALLY SOUND

TSgt David Caggiano, an IMA with the 796 Civil Engineer Squadron, Eglin AFB, has been part of the AFRC Specialty Training Location program since its inception in 1997. He developed the Structural AFS (3E3X1) course, which has been offered at the Naval Construction Training Center in Gulfport, MS, since November 1998. As the primary instructor for the Structures course, he has provided Career Field Education and Training Plan core task training and certification for over 450 active duty, reserve and Air National Guard civil engineering personnel.

**THE RIGHT PLACE AT THE RIGHT TIME**

During an IMA Conference at Robins AFB on 11-12 Mar 00, the National Weather Service issued a tornado warning and severe weather advisory for the base. The senior IMA, Maj Jeff Tousignant, contacted the 78 SFS and volunteered the help of the Security Forces IMAs in attendance at the conference. He was advised that help was needed securing the flight line for the dispersal of the JSTARS aircraft. Maj Tousignant assembled the IMAs, reported into the squadron, and assumed command of the situation. IMAs worked day and night shifts until the weather warnings had expired.

**FUELS RULES**

MSgt Robert Coleman, 78 LG/LGSF, Robins AFB, served as the weekend Supervisor of Quality Control's Fuels Control Center, and assisted with preparation for the annual Environmental Compliance Assessment Management Program audit and state environmental audits. He also modified the Fuels Quality Control and Inspection Mobile Lab, which improved the fuel sampling process at Robins.

**TRAINED AND EQUIPPED**

An IMA assigned to the 78 LG/LGSM, Robins AFB, CMSgt Ed Ware helped solve a serious problem in the equipment turn-in area. As the interim Chief of the Retail Sales Section, he formed and directed a team that processed 1500 documents and 2500 DRMO transactions, as well as over 1000 pieces of material. CMSgt Ware's team also inventoried over 1400 line items.

**CUSTOMER SERVICE**

SSgt Tracey Tucker, 78 LG/LGSP, Robins AFB, led the Document Control Section in processing rejects and clearing delinquent documents. Specifically, she performed document inquiries to determine Type Transaction Phrase Code, Financial Inventory Accounting, and Table of Allowance codes, while helping customers locate documents with signatures. She also researched the status of over 500 documents each week in the Standard Base Supply System, organized documents to be scanned and input, and assisted in file maintenance of accountable and non-accountable documents.

**READY TO ROLE**

SMSgt Ed Tucker, an IMA assigned to 78 LG/LGSW, Robins AFB, played a vital role in maintaining the readiness of our mobility warfighters. He issued, received, inventoried, inspected, built, and broke down general purpose, cold weather, and chemical warfare defense equipment (mobility) bags. He also maintained accountability of inventory and shelf life control for individual protective equipment; stored and updated first aid kits for each mobility bag; and ensured bags were properly labeled, tagged, sealed, and stored.

**FIRED UP**

MSgt Dusty Talbert, 96 CES/CEFP, stepped up as the full-time fire inspector at Eglin AFB and subsequently scheduled and performed a fire inspection of all range facilities, covering over 500 square miles of territory. He was also selected as one of eight personnel on the Eglin Hot Shot Crew, a team designated to provide immediate response to Wildland fires on the Eglin reservation. Three consecutive years of drought in northwest Florida and several strong thunderstorms resulted in a record number of fires. MSgt Talbert's team responded to a Wildland fire behind the hospital, containing it in a matter of minutes, while preserving both human lives and property. They also assumed command of the "Casa Loma" fires complex during an extended contain-and-control operation.

**ASSESS THIS**

Lt Col Vicki Stein, AFMC/PA, coordinated the Total Force Assessment review of AFMC Public Affairs military and civilian personnel, both active duty and reserve for AFMC input to Headquarters Air Force. The TFA information is to be used to influence the next Quadrennial Defense Review (QDR), the Program Objective Memorandum (POM), provide data for Congressional, Office of the Secretary of Defense (OSD), and Chairman of the Joint Chiefs of Staff (CJCS) inquiries associated with wartime requirements and shortfalls, provide data for other strategic, theater, mobility, and support analyses, provide data for use by Air Staff, MAJCOM/FOA/DRU, and base-level personnel for day-to-day management of manpower assets. In the review, she established AFMC's total Public Affairs manpower requirements for both peacetime and wartime operations for a two Major Theater War (MTW) scenario, given existing force structure and operational concepts.

# AFMC MISSION AREA #3: PRODUCT SUPPORT

**Product support provides life-cycle management for Air force warfighting systems.**

### HARD LOOK AT SOFTWARE

Maj Tony Johndro, Trans-Systems SPO (ASC/SM), lead a ten-person team to direct AF software sustainment for the $221M Integrated Defensive Electronic Countermeasure (IDECM) Program. The program provides electronic combat protection for the B-1 and F-15. He is also a major player in the Computer Resources Working Group that is developing the Software Support Requirements Analysis. Using three different software cost estimation models, Maj Johndro developed a 20-year cost estimate for the $60M software support activity for the joint Navy/USAF IDECM system.

### HELMET HEADLINES

Maj Robert Moyle, assigned to the Common Avionics Development System Office in the Trans-Systems SPO, worked with the Air Force Research Laboratory, 311 HSW, and the Joint Helmet Mounting Cueing SPO to prepare a briefing on the Strike Helmet 21 program for presentation to Lt Gen Robert Raggio, ASC/CC. Maj Moyle also established funding profiles for Pre-planned Product Improvement efforts for Strike Helmet 21 technologies. This effort provided a critical check of funding options for numerous helmet technology insertion roadmaps.

### HOME, HOME ON THE RANGE

Col Roger Thomson, SMC/CL, investigated potential impacts of space range modernization on the Titan and Delta launch programs. Based on a review of existing documentation, and interviews with personnel in SMC/CL, SMC/CW, the 45th Space Wing Weather Squadron, and Lockheed Martin, he prepared a number of suggestions for the Launch and Air Force Satellite Command Network Program Offices. His recommendations have the potential of saving millions of dollars in launch integration costs over the next four years. Among his suggestions were the adoption of GPS as the means for tracking elements of the Delta II from launch to orbit insertion; the formalization of an Integration Control Working Group to resolve issues where range modernization can impact launch preparations; and the resolution of weather data interface changes associated with range modernization and the Titan launch vehicle.

### BEST IN TWENTY YEARS

Lt Col Kim Plourde, Defense Support Program (DSP) Program Office, enhanced the working relationship between the Air Force, the Aerospace Corporation, and the Jet Propulsion Laboratory (JPL) through the innovative use of both AF “blue suiters” and Aerospace personnel to support an upcoming NASA mission. In preparation for the Preliminary Design Review of the NASA/JPL CloudSat Spacecraft Program, he recruited representatives from the DSP Program Office and the Aerospace Corporation to serve as members of the CloudSat Mission Assurance Peer Review Board. As a result of the team’s diligence, the mission assurance part of the CloudSat Program’s Preliminary Design Review was described as the “best seen in twenty years” by the NASA review board committee.

### EVERY SWITCH WAY BUT LOOSE

Maj Rex Smith, AFMC/DRA, investigated a report of a serious malfunction in a fighter emergency jettison switch and prepared a detailed summary to inform AFMC leadership of the problem and proposed action plan. When an Eglin fighter experienced an uncommanded jettison of the AIM-9X pylon, engineers launched a full-scale evaluation of the faulty jettison switch. Maj Smith coordinated with SPO managers, system engineers, and manufacturing representatives to identify an interim repair plan, along with long-range switch replacement options.

### NOTHING AMISS IN CASMIS

ASC/FM’s Maj Ted Holloway performed development and operational test and evaluation for ASC’s Centralized Acquisition and Sustainment Management Information System (CASMIS) financial module. He identified critical weaknesses including software problems that caused major inaccuracies in financial data. Maj Holloway consolidated and tabulated CASMIS evaluation results, assisted in developing solutions for the financial input and reporting modules, and made recommendations for CASMIS implementation workarounds. Additionally, he performed sustainment funding research for the ASC Budget Bootcamp.

## FASTER, CHEAPER, SIMPLER

ASC IMA Lt Col Gregg Vernon produced a handbook that reduced the acquisition process time for F-16 SPO personnel. He refined the managerial processes, enabling financial managers to produce their deliverables 25 percent faster. In addition, he performed an internal audit and review of an Air Force Audit Agency draft report on Foreign Military Sales travel costs. He identified several areas having internal control weaknesses and made recommendations to tighten internal controls.

## LOOKING DOWNSTREAM

Lt Col John Capulli, SMC Planning and Development Directorate , supported the 2000/01 Mission Solution Analysis activity. He publicized the kick-off meeting for this activity, developed the Commerce Business Daily announcement, and reviewed and assessed the proposed concepts for the Launch Operations Development Plan. Lt Col Capulli also generated a programmatic description of the Joint Tactical Radio System including program objectives, goals, constraints, and recommendations.

## WEATHERING THE LAUNCH

Col Robert Thomson, Senior Reservist for SMC's NAVSTAR Global Positioning System (GPS) Joint Program Office, reviewed and identified critical concerns regarding Range Systems Standardization and Automation (RSA) and Titan (Range) integration for the program office. In visits with key personnel, he determined that RSA and range weather had the greatest potential to affect Titan launches for the NAVSTAR/GPS program. He also found that lack of an interface addressing key weather data is a major concern for the Titan integration. His findings are being evaluated for their potential impacts on other SMC program offices.

## MEASURE THE THREAT

Capt Bob Collins, SMC Det 11, Peterson AFB, continued technical evaluations on the Space Mission Integration Office's Space Protection Task. He performed research on existing satellite systems to identify available sources of telemetry that could be used to indicate a threat or attack; provided assessment of existing telemetry sources; evaluated timeliness of information, methods, and sources; and ascertained whether information received could conclusively determine if an attack had occurred. Capt Collins' report identified and characterized telemetry sources and described how that information could be made available to a central repository for action.

## FLYING HIGH IN THE AIRBORNE LASER PROGRAM

Capt Elbert Milton of SMC's Airborne Laser (ABL) SPO is directly responsible for the engineering aspects of the ABL affordability program. He prepared the ABL affordability progress report presented at the System Critical Design Review, the final review before manufacturing drawings go forward. His efforts in estimating costs for Program Definition Risk and Reduction, Engineering Manufacturing and Design, and Production Aircraft phases defined cost estimating relationships corresponding to the respective weapon system design for each phase. Capt Milton also participated in ABL flight mission work designed to provide more confidence in the laser design point. He gathered temperature and turbulence data over various operational scenarios using an on-board anemometer system. Additionally, he collected star data to verify system performance characteristics.

***Capt Milton***

## COURSE WORK

Lt Col Vita Eonta, an IMA assigned to HQ AFMC/DR, completed a year-long study of AFIT's Systems 400 course. When AFIT's Executive Review Board mandated a course review after months of declining TDY rates, Lt Col Eonta attended and evaluated the course and conducted a student survey. She completely revamped the notification and enrollment processes, resolved funding issues, and proposed course content revisions and reported the results of her study to the AFIT Executive Review Board. Due to her efforts, TDY rates have increased by 100% and course surveys tout the new Systems 400 course as "the best AFIT class."

## EQUIPPED TO TRAIN

For the third straight year, Lt Col Vita Eonta, HQ AFMC/DR, planned and executed annual acquisition and reform training for over 130 people in HQ AFMC. In conjunction with Air Staff action officers, she coordinated current briefings on Lightning Bolt 99-7 and activity based costing & management. At the conclusion of the meetings, she developed a road map for the new year that incorporated outstanding action items and general officer directives and strategies. She also served as a consultant to AF Space Command on Acquisition and Logistics Reform Week training and activities.

## KEY LINK IN SUPPLY CHAIN MANAGEMENT

Maj John Belic, HQ AFMC/DR, capitalized on his expertise as a supply chain manager for Reynolds & Reynolds to provide some corporate insight into the Secretary of the Air Force's Lightning Bolt 99-3 (LB 99-3) initiative. In keeping with LB 99-3's thrust to promote acquisition reform and the adoption of commercial practices, Maj Belic developed and presented an industry-focused supply chain management briefing to the Air Force Logistics and Product Centers. He educated Center personnel on commercial best practices and the tools required to establish Centers of Expertise and institute effective market analysis.

## TEAM QUARTERBACK

Maj John Belic, HQ AFMC/DR, promoted the formation of an Acquisition-Logistics Policy Reform Team (AL-PRT) in response to a compelling need for closer coordination between the acquisition and sustainment communities. The AL-PRT is responsible for ensuring all acquisition and logistics documents conform with established USAF and DoD policy guidance relative to Acquisition Vision 2000, Joint Vision 2000, and approved product support vision statements and objectives. Maj Belic developed the charter and concept of operations (CONOPS) that identifies SAF/AQX, HQ USAF/ILM, and HQ AFMC/DRI as Team co-chairs. In support of the Charter and CONOPs, he also developed a process flow diagram and Action Officer/Policy OPR checklist to facilitate the AL-PRT process.

## C-5 TIGER TEAM TOP CAT

Col Louise DeWilder, HQ AFMC/DRO, played an integral part on the C-5 Tiger Team, sponsored by HQ AFMC and AMC. Col DeWilder led the Program Management/Supply Chain Management Team, comprised of over 25 active duty and civil service employees from HQ AFMC, HQ AMC, WR-ALC, AFLMA, Air Staff, OC-ALC, and DLA. Command leadership chartered the team to review program management and supply chain management processes and systems to determine what areas constrain or inhibit the availability, maintainability or reliability of the C-5 aircraft. From June through August, Col DeWilder and her team visited Robins AFB, Tinker AFB, Wright-Patterson AFB, Hill AFB, Kelly AFB, DLA-Richmond, and the Lockheed Aircraft Logistics Center for benchmarking. The team reviewed the existing processes and made improvement recommendations which should help other weapon systems as well.

## STAUNCH LAUNCH

Lt Col Marc Masquelier, an IMA assigned to HQ AFMC/DR, initiated the formation of a Red Team to assist SMC with their Launch Assurance Process. As a foundation for studying that complex process, he extracted and trend-analyzed information from three recent Titan IV mishap investigation boards. He also dissected the aircraft mishap investigation process, and proposed a new parallel process to evaluate space launch failures. Finally, he recommended a course of action for incorporating new Operational Safety, Suitability and Effectiveness requirements into the Launch Assurance Process.

## REFORM SCHOOL

Capitalizing on her civilian expertise as a Naval Post Graduate School professor, Maj Diana Angelis, HQ AFMC/DR, presented a keynote briefing during AFMC's Acquisition Logistics Reform Week activities. She also presented two tutorials on her presentation, "Using Activity Based Management (ABM) to Improve Acquisition and Logistics Management." Her paper on the implementation of Activity Based Costing in AFMC was selected for publication in the Winter 2001 edition of *Acquisition Review Quarterly.*

## RED ALERT

Col Sue Busler, HQ AFMC/DR, stepped forward as AFMC's representative on AMC's C-141 Retirement, Extension, Drawdown IPT (RED Team). Initially, she scrutinized AMC's PPlan, mapped out AFMC's roles and responsibilities, and facilitated a productive information exchange with headquarters functional offices. She also highlighted several crucial AFMC issues regarding depot maintenance, parts obsolescence, support equipment, en-route maintenance, and simulators, and coordinated requisite program office management and engineering support.

**IN GOD WE TRUST, ALL ELSE WE TEST**

Lt Col Marc Masquelier, HQ AFMC/DR, capitalized on his extensive background as a flight test engineer to rewrite the *Air Force Program Manager's Guide to Test & Evaluation (T&E).* The guide spells out all the T&E factors that must be considered when fielding a new or modified aircraft system, with an emphasis on the roles and responsibilities of the program manager, joint test considerations, and Test Planning Working Groups.

**SUPPORT AND DEFEND**

Lt Col Joe Crites, AFMC/DR, led a Process Action Team tasked to reevaluate metrics used to track AFMC's logistics and sustainment support of the warfighter. He launched an exhaustive survey of operational MAJCOM metrics and command briefings to identify common approaches and incorporate lessons learned. After defining and coordinating a new metrics package designed to keep the Commander informed, he incorporated his findings into a new AFMC web site focused on warfighter support.

**PUSH OR PULL**

CMSgt Chet Adkins, assigned to AFMC/DRR, served as a member of the core team laying groundwork for a 2001 mobilization exercise which will evaluate mobilization methodology and information systems used to return inactive reservists to active duty during war or national emergency. A munitions career field expert and seasoned battle staffer, CMSgt Adkins identified must-have parameters for the exercise, realistic metrics, and key players. He also briefed leaders in the munitions arena on exercise expectations and real-world ramifications. As undisputed expert and corporate memory on HQ AFMC Battle Staff operations, particularly in the fast-paced world of munitions management, he also updated all Battle Staff data books and established new criteria and procedures for active duty Battle Staff Director training.

**STANDARDIZED AND OPTIMIZED**

Maj Michael Stiff, ASC/EN, provided support to many projects designed to standardize avionics equipment upgrades which will, in turn, reduce costs and increase reliability and maintainability. His projects included organization of the 6th Quarterly AF Avionics Standardization Conference; development of the Polyplanar Optical Display Safety-of-Flight test plan; and initiation of a study addressing the expansion of high data rate transmissions on the 1553 data bus.

**PLAYING ON THE A TEAM**

Maj Scott Weathers of the McClellan AFB A-10 SPO, deployed to Ahmed Al Jaber Air Base in Kuwait as part of the depot . After replacing all the wiring and electrical connectors associated with the start and control circuitry, the team determined that the electronic control box (ECB) was the source of the problem. Maj Weathers visited the ECB manufacturer, gathered data on the signal characteristics, and developed a field-capable ECB test device. He returned to Kuwait with the test device and assisted in returning the APU to operation, releasing the aircraft for functional check flight, and returning it to its operational unit.

**THE MYSTERY OF THE MISSING ROCKETS**

Assigned to the Air-To-Surface Munitions Directorate at Ogden ALC, Lt Col Glenn Scadden emerged as the good guy detective in a real life mystery involving missing MK-6 Jet Assisted Take-Off (JATO) rockets that contribute to a very unusual mission. JATO rockets are attached to modified, ski-equipped LC-130 aircraft flown by the 109th Airlift Wing (New York ANG). The 109th flies to both the north and south polar regions to supply research stations manned by various nations and international agencies. When it was discovered that MK-6 JATO rockets and associated igniters were not readily available, Lt Col Scadden led an effort to track down serviceable assets. After locating JATO stockpiles, he headed up a joint service team to test the 1954 manufactured rockets, out-of-spec and showing excessive ignition delays. He worked with the 109th to get approved workarounds to ship 300 usable JATO rockets and igniters to the designated forward location during the few weeks a year the supply boat can access it. Lt Col Scadden's actions averted an enormous crisis for the organizations and international missions that depend on the 109th for supply. One such crisis occurred when Dr. Jerri Nielsen was stricken with breast cancer at Amundsen-Scott South Pole Station and a JATO enabled C-130 rescued her. Lt Col Scadden now leads a team tasked to develop a replacement for the 50-year-old, outdated JATO rocket motors so the AF can continue to support important research efforts at the north and south poles.

## FAA/USAF AIRWORTHINESS TRAINING COURSE

Capt Norman White, ASC/EN, initialized a training concept to support the Operational Safety, Suitability and Effectiveness directive of "airworthiness training" for all EN personnel. Using information gathered from EN personnel, FAA documentation concerning airworthiness certification, and his civilian experience working at a major commercial air carrier, he constructed a concise, modular, 2-day course. He also taught the course, using his civilian FAA/certification experience in the classroom. This move saved EN an estimated $120,000 dollars in educational/travel expenses, along with full-time experienced personnel costs.

## MODELING THE NEWEST STYLES

Expanding the use of Modeling and Simulation (M&S) as a tool to improve the acquisition process has become a top DoD priority. Lt Col Stanley Fuller, ASC/EN, played an active role in the development of a Simulation Based Acquisition (SBA) framework and the establishment of an office at Wright-Patterson AFB chartered to provide SBA guidance to Program Offices. He also developed an ASC template to fully implement the AF M&S Instruction, and set in motion a staff summary process to garner approval. His template was sent to AFMC as a model for their use in structuring a Command template.

## FINANCIAL FINESSE

Maj Victoria Kocara, assigned to ASC's SOF SPO, developed technical definitions for Precision Terrain Aided Navigation (PTAN) and COBRA complex helicopter program modifications. She also prepared cost estimates totaling $73M. SOF decision makers used her results to craft alternatives for improved HH-60G combat search and rescue tactics. In addition, Maj Kocara performed Cost/Schedule Status Report data analysis for the $1.5 billion Integrated Weapons System Support Program, identified questionable costs, and provided recommendations for improvements. She identified $513K worth of contract funds that could be reallocated to higher priority AFSOC uses.

## TAGGING THE DATABASES

Maj Chana D. Cooper, SOF SPO, was manager of a specialized database used by the ASC Special Technical Planning Integrated Product Team Integrated (TPIPT) to conduct its biennial Modernization Planning Process (MPP). She designed the database in spring 1999 while directly supporting AFSOC. After being assigned to the ASC TPIPT, she continued to add new functionality to the database to better enable AFSOC to track current needs against required core missions. She has also become a major player in the development of the Information and Resource Support System (IRSS), which is being developed jointly by AF/XO and AF/XP to provide a comprehensive, integrated information architecture coupled with the staffing functionality used in most organizations.

## BEST SEAT IN THE HOUSE

Majors Richard Rovinsky and Richard Johnson, IMAs supporting the SOF SPO, led activities for a new approach to acquiring and maintaining Information Systems Management and Resources, known as Seat Management. They developed the information systems requirements and supported the evaluation of contractor proposals. The SOF SPO then selected a Seat Management source using a GSA contract vehicle and pre-approved sources. Now the SPO has a reliable information system that is promoting progress toward more efficient operations and process improvements with extraordinary information systems support

## RISK MANAGEMENT

Lt Col Alan Howell, Senior IMA for the Combat Talon II (CT-II) Program Office, conducted a risk assessment on the Combat Talon II Aerial Refueling System (ARS) currently in development. HQ AFSOC/CC mandated this aircraft modification as the number one priority for CT-II. The ARS will provide the CT-II platform with the low speed aerial refueling capability required for AFSOC's rotary winged aircraft. The risk assessment process involved interviewing CT-II Engineers to obtain risk assessment factors; prioritizing risk assessment factors; and developing mitigation efforts to minimize or eliminate the adverse effects of each risk factor on ARS development.

## GUNSHIP DATA SYSTEM HITS BULLSEYE

Maj Dennis Varhola, SOF SPO, developed and fielded a comprehensive PC-based data management system, the Gunship Desktop Workbook. This tool has become the single source of information for AC-130U Gunship Program Management Reviews. Building on the work of IMA Maj Richard Rovinsky, the Workbook reduced the time spent on these Reviews by consolidating and centralizing data to include financial spreadsheets, contracting actions, and logistics support information. The Gunship Program Office has used the Workbook for five months to successfully communicate to the user and prime contractor information on funds management, program technical performance and data development, and schedule impacts. Maj Varhola also developed procedures to update the data and ensure its security so that information is up-to date without risk of corruption.

## CONVINCING CONTRACTING CONTRIBUTIONS

Maj Lloyd Crain, SOF SPO, served as Deputy Chief of the Contracts Division and provided procurement support developing and sustaining the SOF'S C-130 aircraft fleet. He executed high-priority contracts to satisfy requirements for the AC-130U Gunship, MC-130H Combat Talon II, CV-22 Osprey, and H-60 Pave Hawk. He negotiated and modified numerous avionics and sustainment contracts, reducing contractor proposed man-hours by 25% for AC-130U Gunship enhancements and incorporating user schedules and future buy options. Maj Crain also led the SOF SPO contracts closeout team, achieving an unprecedented zero backlog for contract closeouts and eliminating a ten year backlog of overage and completed contracts.

## FEELING OBLIGATED

Capt Dennis Surface, ASC/SY, assisted the Electronic Combat Development Systems Office (DSO) Subsystems Program Office in tracking over $800,000 in Fiscal Year 1994 Unliquidated Obligations (ULOs). He performed research on contracts and analyzed all known existing records and systems to resolve $4,000 in ULOs for the EF-111 Program, $368,000 in ULOs for the Missile Warning System Program, $17,000 in ULOs for the ALE-47 Program, and $39,000 in ULOs for other programs. Without his timely intervention, these funds would have expired, placing the burden for outstanding invoices and obligations on current year acquisition programs.

## CHARTING CHANGE

Col Robert Schoenfeld, Lt Col David Orvold, and Capt Howard Horstman, ASC/YC, supported the C-17 OSS&E Assurance and Airworthiness Verification. Col Schoenfeld led a team tasked to flowchart and formalize the C-17 change process. Specifically, his team captured and documented, from a qualification viewpoint, all the responsibilities of Boeing and the government. Lt Col Orvold revised the C-17 Block Management Guide to reflect changing processes, such as the Block Manager's Forum, and the imperative of managing to the OSS&E Baseline. Capt Horstman adapted an ASC Airworthiness Certification Criteria document into a C-17 Airworthiness Verification document that will ensure all disciplines fully evaluate each aircraft retrofit, design or system change.

## GOVERNMENT ISSUE

Lt Col David Orvold, ASC/YC, developed a database that allows the C-17 SPO to consolidate, track and manage all open issues and action items. Previously, issues and actions were generated in a number of forums making it difficult for managers at all levels to stay apprised of the myriad open issues impacting the aircraft. Lt Col Orvold's database allows individuals to better manage actions assigned to them, and enables senior leaders to quickly review the outstanding issues status. This capability provides a new dimension for assessing the health of the C-17 program.

## TEAM WORK

Maj Joseph Linsenmeyer, ASC/YP, was a premier player on the Improved Data Modem (IDM) Retest-OK (RETOK) Tiger Team. He conducted and documented data analysis of IDM RETOK problems in support of the IDM Program Management Review (PMR). He also assisted in the development and presentation of a briefing on the problem to F-16 FMS and European Participating Group (EPG) customers. The briefing addressed lessons learned that might help FMS/EPG customers avoid problems. Maj Linsenmeyer also supported the F-16 ALR-69 RWR Antenna Optimization program. He reworked the documentation package requesting the reprogramming of needed funding and Congressional notification. He also analyzed the installation schedule and recommended actions to reduce total program schedule.

## LONG DIVISION CHIEF

Lt Col Rick Schikora served as the acting Chief, ASC/YPL, F-16 Acquisition Logistics Division for four months while a division chief was being identified. He developed and beta-tested an electronic form to facilitate completion of government performance assessment reporting (GPAR) metrics evaluation. He assisted with a GAO audit in response to a congressional inquiry into how DoD organizes and integrates acquisition and logistics sustainment within the various military services and operational commands. Lt Col Schikora met with several GAO evaluators, and provided them background information and an orientation briefing on the GPAR service level agreement program that the F-16 SPO has developed. In addition, he completed a draft operating instruction on GPAR implementation for utilization by the F-16 SPO in assessing base support organizations. As the Division Chief, he also established a logistics training program for all F-16 acquisition logistics personnel.

## LEAVING A LEGACY

Lt Col Rick Schikora, ASC/YP, developed a draft statement of work for hardware legacy support of F-16 aircraft. In the past, the aircraft prime contractor was willing to support older, out-of-warranty aircraft using existing aircraft production contracts. However, these older incentive and cost plus contracts are being aggressively closed out by the SPO, leaving only fixed-price vehicles. The legacy support contract that he is developing will provide a bridge for weapon systems support until a new Falcon 2020 sustainment contract can be let with provisions for hardware support.

## INTERNATIONAL FINANCE

As Acting Branch Chief of the Financial Management International Division (ASC/YPFA), Lt Col Doug Kuplic demonstrated that Cooperative Programs under Section 27 of the Arms Export and Control Act were an alternative to the traditional Foreign Military Sales (FMS) process. Specifically, these programs will allow the US Government to negotiate the European Participating Group (EPG) countries' share of program support, including FMS infrastructure and manpower, thereby facilitating an equitable sharing of costs with those countries. Lt Col Kuplic also critiqued the Summary Statement of Intent for the Project Agreement allowing the Multinational Fighter Program Cooperative Participation in the F-16 MA/M4+ Program. He wrote the Financial Execution Procedures for the EPGs and validated the financial arrangements.

## LOOKING FOR THE BEST SEARCH AND RESCUE OPTION

With the first of the AF's 105 HH-60G Combat Search and Rescue (CSAR) aircraft nearing their flying hour service life limit, the AF launched a one-year Combat Rescue Analysis of Alternatives (AoA) to provide the DoD milestone decision authority with one or more upgrade or replacement options. ASC/YF IMAs Lieutenant Colonels Linda Pangborn and Mark Savchitz, Majors Dean Peebels, Karla Moyer and Richard Rovinsky, and Capt Manuel Payne supported the Lifecycle Analysis Cost IPT led by Maj Lloyd Crain, and tasked to evaluate CSAR platform concepts being considered by ACC. Concepts under consideration include a light helicopter, a medium- lift helicopter and medium-lift tilt-rotor. The team will use their cost analyses of these concepts to prepare program documents for all phases of the AoA leading to Defense Acquisition Board Milestone Decisions I and II.

## MASTERING THE ABCs OF ABC

ASC/SY IMA Lt Col Carolyn Winters and ASC/PK IMA Maj Lloyd Crain developed and implemented the SOF SPO Activity Based Costing (ABC) Pilot Project as an official resource accountability system mandated by AFMC as a management tool. They led a team of approximately twenty acquisition professionals who were responsible for developing organizational resource, activity and cost structures. The Pilot Project defined the ABC framework within the confines of the Product Support Mission Areas, provided the SPO with on-going ABC Management capability, and determined workload and resources required for implementation.

## T-39 SERVICE LIFE PUT TO THE TEST

Maj Robert Steyer, Chief, Logistics Programs, and CMSgt Florencio Martinez, Maintenance Supervisor, 412th Logistics Support Squadron, Edwards AFB, hosted representatives from US Government agencies and the commercial aircraft industry in an effort to identify and resolve critical equipment, supply, and operational issues impacting the T-39 aircraft test program. Manufactured in the 1950s and 1960s, the T-39 is used for test programs at Edwards where the remaining three operational aircraft still fly active missions. The conference proved highly successful and resulted in establishing the required support to sustain the aircraft for the remainder of its operational service life. The estimated scope of the program is $5 million.

## REPOSITIONING GPS

Capt Sarah Houle, an IMA in NAVSTAR Global Positioning System (GPS) JPO (SMC/CZ), was instrumental in the preparation of a Request for Proposal to Boeing for a $400M effort to restructure the current GPS IIF Operational Control Segment (OCS) contract. Capt Houle defined the requirements, and coordinated with contracting personnel, support contractors, and customers to ensure operational needs would be met. She also formulated answers to 18 in-depth questions posed by the Government Accounting Office regarding original vs. current OCS contract costs.

## EARNED VALUE EARNS VALUE

A specialist in Earned Value Analysis, Maj John Peterson, SMC/FM comptroller, developed a training package for SMC to counter a critical shortage of skilled experts in this area,. His Earned Value Training Package consists of a modular-based training component designed to teach SPO and contractor personnel the basics of earned value program management and cost/schedule control systems criteria. In addition to writing the training material, he is also compiling in-depth case studies.

## STAYING SINGLE

Maj Walt Lemanski, SMC Det 11, assisted in the organizational and contractual transition of the GPS Operational Control System (OCS) from stand-alone development and maintenance to a new acquisition and maintenance concept known as the Single Prime Initiative (SPI). Under SPI, a number of OCS development and maintenance initiatives were consolidated under a single prime contractor and a single contract. Maj Lemanski prepared an outline of key issues and interdependencies and briefed them to the IPT. He identified potential technical and acquisition problems and participated in a top down review to determine whether any existing requirements conflicted with the proposed SPI architecture. He also acted as the primary OCS reviewer of the GPS Integrated Program Baseline Summary and corrected a number of inconsistencies in the document relating to the integration of OCS into the GPS.

## DOUBLE DUTY

Col Don Morley, formerly the IMA to SA-ALC's Director of Propulsion, and now assigned as IMA to the Director, MILSATCOM, took the reins of the SA-ALC/LP Propulsion Directorate in June and again in August. In September, he served as Director of the Fighter/Trainer Directorate, SA-ALC/LF. His keen understanding of the issues surrounding such diverse engines as the F100, powering our front-line fighters, and the J85, propelling our T-38s, allowed him to effectively marshal the skills of the Propulsion Directorate in supporting the AF position on "50-50" to Congress. Under his leadership, the Propulsion Directorate also achieved one of its highest WRE levels ever, all the while transitioning its personnel and IMAs to OC-ALC. Col Morley also directed the final transition of the International Fighter/Trainer Directorate, an initiative requiring a massive transfer of people, materiel, and responsibility.

## EARNING YOUR KEEP

Maj John Hein, a newly assigned IMA in the WR-ALC/PK office, wasted no time bringing an important new metric on line at the Center. A member of the Acquisition Support Team, he jump-started the new Earned Value Management program in the Contracting Directorate by developing a management guide, preparing training guides, and compiling a list of significant web sites for use by directorate personnel.

## GUNNING FOR A NEW REPAIR PROCESS

Maj Pam Summers, a Senior Materials Engineer at WR-ALC Space and Special Systems Directorate, devised a cost- and timesaving new process for repairing the 20 mm gatling gun on the F-15E. Two aircraft were MICAP for repair, awaiting replacement of the entire gear assembly, with an estimated parts delivery date of six months. She proposed replacing the gear bearing only, and then consulted with Robins AFB engineering, General Dynamics, the bearing manufacturer, and DLA to develop maintenance procedures and determine the availability of a sub-assembly unit. Her proposal resulted in a repair that returned the two aircraft to mission capable status within a week, not months, and cost just five percent of the original estimate. Maj Summers' innovative procedure was incorporated into the aircraft TOs.

## ON COURSE, ON "GUIDE"SLOPE

Maj Waring Worsham, ASC/EN, reviewed and updated the ASC Manufacturing Development Guide (MDG), a handbook for all acquisition professionals, focusing on principles and best practices in the areas of systems engineering, manufacturing and quality assurance. The guide highlights new and evolving manufacturing development concepts and best practices throughout the government acquisition process. Maj Worsham updated the week-long training course, added speaker notes, and developed a train-the-trainer session. His updates negated an additional man-year of contractor efforts and will support timely, more flexible course offerings to ASC personnel.

## A BREATH OF FRESH AIR FOR LIQUID OXYGEN SERVICING PROBLEMS

Lt Col Thomas Tibbals, ASC/EN, provided analyses and supported testing at Eglin AFB, required to identify and resolve the Liquid Oxygen servicing problems of the AC-130U Gunship aircraft. His close coordination with the prime contractor on this test resulted in critical data gathering and test adaptation at reduced cost. He completed his report one month earlier than the contractor, which allowed the program engineers to arrive at a trade-off study solution for resolving the problems with this system.

## HEADS UP!

Majors Dave Krahling and Dianne Langmade, ASC/EN, supported the F-16 SPO in their investigation of possible faults in the aircraft's Heads-Up Display (HUD) and Instrument Landing System (ILS). During flight tests of new HUD software, test pilots reported the ILS Glideslope symbol on the HUD drastically moved up or down. The two IMAs laid the framework for an effective pursuit of all possible causes by performing a review of ILS and HUD maintenance data reports and identifying trends.

## ACING THE TEST

Maj David Tarullo and Capt Kurt Rinke, ASC/LU, provided extensive aircraft developmental test support to the 46th Operations Group, Det 1, Hurlburt Field. Maj Tarullo completed the AC-130U Flight Deck Modification Method of Test Plan, coordinated the combined DTE/OTE flight test profile, and completed the Post Test Report. He supported resolution of the AC-130U Gunship APU Upgrade problem. After completing instrumented flight test, he provided technical and procedural guidance on how to proceed in resolving the APU inflight-start-fire warning light problem. He also wrote the Post-APU Certification Flight Test Report. His action helped resolve the issue and avoid a fleet-wide operating limitation. Capt Rinke participated in Pre-test Planning and Test Card Review for the Talon II/MH-53 Low Probability of Intercept Beacon test. He also performed test preparations for the AC-130 APU test and accomplished documentation for mission, system, airframe, program office and Test Wing considerations. As Flight Test Engineer, he performed the duties of the airborne Test Director.

## SUSTAINMENT ARRANGEMENT

Lieutenant Colonels Gregory Cate and William Ober, assigned to the CV-22 Osprey section of the SOF SPO, Patuxent Naval Air Station, Maryland, led multiple program acquisition and sustainment efforts. The IMAs initiated development of the CV-22 Product Support Plan, documenting the CV-22 sustainment process, from the Osprey's initial acquisition to final retirement. Lt Col Ober researched how the AF/Navy team sustains the MH-53 helicopter and prepared a briefing for the Deputy Program Manager proposing a similar sustainment process for the CV-22. In addition, Lieutenant Colonels Cate and Ober drafted a CV-22 Team Charter clarifying all management interfaces associated with the joint V-22/CV-22 Osprey program.

## CAPTURING COSTS

Maj Victoria Kocara, a senior cost analyst assigned to the SOF SPO, pursued technical definition for the Follow-On SOF Aircraft (MC-X) Program update, previously estimated at almost $25B for EMD, Production, and Operations and Support. She led a team in capturing the system description and scope being used for the MC-X Program, relative to the Mission Solution Analysis and Integrated Investment Analysis, and then drafted an updated cost estimate.

### PILOTS SHOOT DOWN FLIGHT SAFETY ISSUES

Majors Neil Schier and Rick Myrick, ASC/LU, investigated and eventually closed out a host of longstanding SOF flight safety issues. These issues included an AC-130U flight control rigging Technical Order change, AC-130U bore sight modification, AC-130H in-flight pilot tube icing anomalies procedure, AC-130U flight engineer oxygen hose modification, CV-22 fuel jettison procedures, and a Combat Search and Rescue aircraft analysis.

### WHERE THE RUBBER MEETS THE ROAD

Maj Josh Lackey, ASC/YC, validated the Air Force's only tire wear prediction code and submitted a final report to AFRL and tire research organizations for review. Utilization of the code in future high performance aircraft development programs will streamline the process of aviation tire design. Application of the code in future C-17 tire design programs could potentially preclude the requirement for a $5 million flight test program.

### TUNNEL VISION

Col Robert Schoenfeld, ASC/YC, led a cross-functional team tasked to develop a plan to resolve three C-17 Underfloor Maintenance Tunnel (UMT) issues raised by the Support Operational Requirements Team. The team submitted a Test/Work Request to explore the feasibility of allowing higher On-Board Inert Gas Generating System bottle pressure for safe UMT entry. Their recommendation would minimize system recharge time and improve aircraft mission readiness.

### CONTRACTS TO KILL

To overcome severe manpower shortages precipitated by BRAC decisions, the Kelly AFB Contracting Directorate energized IMAs to streamline and expedite contract close-out proceedings. Led by Lt Col Bill Sumner, the team, comprised of Majors Betty Cricklin, Doug Buchanan, and Oscar Rivera, successfully identified, designed, briefed and implemented a plan to efficiently eliminate the contract backlog.

### ENDANGERED SPECIES

In her part-time role as AFMC liaison to AMC, Col Sue Busler, AFMC/DRR, successfully brokered an agreement between SA-ALC and AMC on the repair of the Condor High Reach Maintenance Platform. Maintenance inspections of the Condor revealed dangerous cracks that led to the immediate grounding of the entire fleet, seriously impacting cargo throughput capabilities at airlift hubs such as Mildenhall and Osan. Col Busler negotiated several compromises between representatives from AMC/LG, AMC/DO, and SA-ALC/LD, eventually arriving at a prioritized repair list and timeline that returned the maintenance platforms to mission capable status ahead of schedule.

## AFMC MISSION AREA #4: INFORMATION SERVICES

**Information services develops, acquires, sustains and integrates combat support information systems for Air Force and Defense Department customers.**

### INTELLIGENCE DUMP

Lt Col Sandra Scott, Maj Bindley Williams, MSgt Doug Cowart, and TSgt Steven Jones, WR-ALC/LNN, and TSgt Terry Kunkler, USPACOM, Camp H.M. Smith, Hawaii, tackled the enormous task of purging the Intelligence Classified Library at Robins AFB. In less than two weeks, the team evaluated more than 4,500 research/technical documents and media, disposing over 2900 documents determined to be available through electronic sources and created an automated database. It will facilitate WR-ALC Intelligence Division maintenance and retrieval of documents and will be made available to base wide users. Through a combination of expert computer skills, knowledge of handling classified information and hard work, this IMA team saved hundreds of active duty manhours and provided an efficient retrieval system.

# AFMC MISSION AREA #5: TEST & EVALUATION

**Test and evaluation provides customers the highest-quality development test and evaluation, air traffic control and weather services at the lowest possible cost.**

### TIGER TEAM TWEAKS TEST TIME TABLE

Col Mike McClendon, ASC/YF, served on the F-22 Flight Test Tiger Team chartered to examine the F-22 developmental flight test program. The team looked for ways to preserve a schedule being eroded by late aircraft deliveries and periodic grounding. The Tiger Team recommended measures to capture marginal gains in the schedule and alternative courses of action to preserve the Initial Operational Capability date.

### MANNING THE UNMANNED

Maj Berte, SMC/TE, one of four certified Global Hawk Unmanned Aerial Vehicle (UAV) Range Safety Officers (RSO) was cross-certified to perform RSO duties on Air Force programs at the Air Force Flight Test Center, Edwards AFB, Calif. When AFFTC could not support the first cross-country deployment of this Global Hawk due to an insufficient number of RSOs, they requested Maj Berte's support. He was able to support the mission, allowing the testing to be conducted in concert with scheduled active force exercises. Without his cooperation and availability, the $160 million deployment would have been scrubbed or rescheduled, resulting in a lost opportunity to test the Globalhawk in a Joint NATO Warfighter exercise off the coasts of Spain and Africa. The deployment also represented the first transoceanic operation of the Globalhawk reconnaissance platform.

### X-TRAORDINARY INSIGHT

Capt Jeff Janicik, SMC/TE, attended the X-40A Phase II Air Flight-Worthiness and Safety Review Board at NASA Dryden and provided the X-40A test team with several short reports on test operations and baseline configuration control for all test information sheets, test procedures, and test reports. He also researched and created a draft X-37 B-52 Atmospheric Landing Test (ALT) Plan after discussions with various Boeing personnel and several B-52 / X-37 interface meetings. Capt Janicik provided the Boeing X-37 Program Manager a USAF perspective on X-40A Phase I test operations in regard to cost and technical benefit implications of added oversight from the government.

### PILOT BONUS

Maj Thomas LaValley and Maj Gerald Elwell, 747F 400 qualified pilots assigned to the Airborne Laser (ABL) Program Office, completed training in United Airlines' advanced flight simulator and followed up with active duty personnel to emulate the ABL mission profile. During the simulator rides, they studied ABL aircraft performance based on realistic inputs of payload, altitude, and speed, an important step in developing realistic flight test plans for this critical mission.

### LESSONS IN LETHALITY

With the support of ACC and the Joint Technical Coordination Group, Aircraft Survivability (JTCG/AS), Maj Steve Wichmann, a member of the 46 OG/OGM sponsored-USAFR Air Defenses Lethality Program, traveled to Aviano AFB, Italy, to collect information on Kosovo threat engagements resulting in the loss of an F-16, and damage to two A-10s and an F-16. He acquired intelligence and logistics reports, and interviewed pilots, wingmen, unit tactics officers, crew chiefs, and maintenance personnel. With additional data collection and assistance by Maj Tony Brindisi and Maj Mark Mahaffey, he assembled case files on each incident including photographs, reports, interviews, results from the Missile and Space Intelligence Center forensics analysis, damage and repair data from AF Combat Logistics Support Squadrons, and presentation aids. They will be archived as permanent records at the Survivability/Vulnerability Information Analysis Center.

## JOINT EFFORT

Col Walt Harrington and Maj Tony Brindisi, who manage the 46 OG/OGM-sponsored USAFR Air Defenses Lethality Program, have laid the groundwork for a joint service reserve lethality program. Col Harrington collaborated with the Navy Survivability Division Chief at Patuxent River MD, on a project paper submitted to the OSD Live Fire Testing and Training Initiative for FY01 funding. If approved, the proposed "Joint-Service Threat Warheads and Effects Training" program will provide funding for training to the warfighter, improvements to the website, and civilian support by the Navy and AF. Maj Brindisi worked with Naval Air Warfare Center personnel to document Navy live fire tests, especially Man Portable Air Defense System (MANPADS) tests, for the benefit of the joint-service test community.

## THREATS AT CONFERENCES

Col Walt Harrington, 46OG/OGM, provided instruction on the lethality of the Man-Portable Air Defense System (MANPADS), or shoulder-fired missile threat, at the FY00 AFSOC Tactics Conference. He explained missile components, lethality mechanisms, warhead fuzing, and aircraft vulnerability to this threat. Col Harrington reinforced the instruction with actual missile hardware, HUD video from combat, photographs of damaged aircraft from combat and live fire testing, and synopses of actual engagements during the Air War Over Serbia. In addition, under Col Harrington's direction, the 46th TWs Air Defenses Lethality Program hosted its third "Threat Warheads and Effects Seminar" in August. Designed to improve the effectiveness of unit intelligence support to combat operations, the seminar used a multi-media presentation including lethality information, imagery, and hardware from threat exploitation, live fire testing, and combat. Ninety-one people representing four Air Force major commands, the Army, Navy and civilian industry attended the seminar.

## INVESTIGATION INSTIGATION

Maj Dave Bartlowiak, 46th Test Wing, led an investigation of C-130 gunship combat damage and loss attributed to shoulder-fired missiles in Southwest Asia and Desert Storm. The investigation included research at the Survivability Vulnerability Information Analysis Center (SURVIAC) and the AFSOC history office, interviews with investigators and survivors, and assessments of terminal missile engagements. He provided lessons learned from the C-130 analysis to the FAA to improve civil aviation preparedness for this widely deployed threat to both civilian and military aviation.

## GUNSHIP GURUS

Captains Gary Drake and Kurt Rinke teamed with Major David Tarullo**,** at the SOF SPO, Test and Evaluation (T&E) Division to support the AC-130 Gunship developmental test. They supported test planning and test flights for AC-130H, AC-130U 'Spooky' and MC-130H Combat Talon II modifications and up-grades helping accelerate and facilitate AFSOC tests. In addition to acting as the SPO/Det 1 liaison and Test Team lead, Major Tarullo supported AC-130H and MC-130H ALR-69 Radar Warning Receiver baseline ground tests, and drafted the AC-130U Flight Deck Modification Method of Test plan. Captain Rinke authored and staffed a Formal Test Request letter to HQ AFSOC justifying the requirement for operational aircraft to support the Radar System Upgrade Program, and flew two AC-130H Block Cycle 1.0 test flights implementing the test cards and meeting 100% of the test objectives. Captain Drake supported two "AC-130U Flight Deck Modification" developmental test and training flights, and drafted a 21-page final "AC-130H Software Block Cycle Upgrade 1.0 Letter Report." These three IMA Flight Test Engineers provided invaluable test experience while contributing to accelerated test preparation, execution and post-test reporting.

*CMSgt Martinez*

**GPS FOR LESS**

Maj Bob Steyer, CMSgt Florencio Martinez and MSgt Theresa Brooks, assigned to the 412th Logistics Group at Edwards AFB, planned and implemented a new Global Positioning System integration upgrade for the T-39 aircraft assigned to Edwards AFB. The team accomplished all program management tasks and total system integration in less than 90 days. The new system, consisting of commercial-off-the-shelf items is low cost and easy to maintain, and will serve as a baseline for future system upgrades. Using commercial acquisition concepts, the team realized $100,000 in program savings and cost avoidance. All aircraft met critical mission requirements ahead of schedule.

*Maj Steyer*

**TEACHING THE TEACHERS**

Maj Christine Boyette, an IMA assigned to the 6th Space Operations Squadron, Schriever AFB CO, developed a new division for the USAF Test Pilot School (TPS) at Edwards AFB. In keeping with the new division's mission, the continual improvement of TPS academics, she created and taught courses on lesson preparation and classroom instruction. Maj Boyette also developed new curriculum, scheduled the school's many reserve pilots and flight test engineers, and served as the resident "Space" expert.

**BEST TESTS**

Three IMAs stepped forward to spearhead preparations when the 412 OG/OGV Stan Eval office lost several key personnel just two months prior to a major AFMC Flight Operations Inpsection. The aircrew trio, Lt Cols Edward Wilson and Robert Hanlon and Maj Robin Adam assisted active duty Air Force officers in preparing all nine flight test squadrons for the inspection. Using their aircrew expertise in multiple aircraft, they developed a rigorous weekly testing program to prepare aircrew members for the inspection. The 412TW received an overall rating of EXCELLENT, with an aircrew performance average of 99.58 percent, directly attributable to the pre-inspection test program. The Stan/Eval office also received an EXCELLENT rating, due to the experienced leadership provided by the three IMAs in a time critical situation.

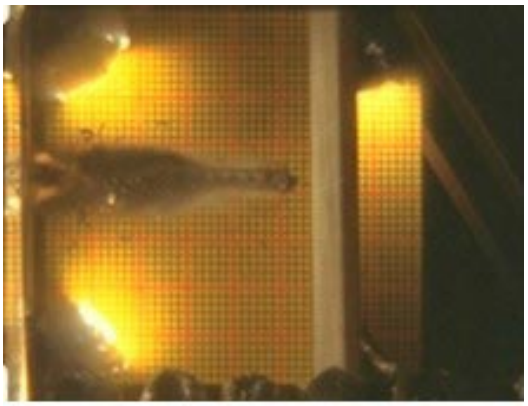
*Maj Sturmer*

**TAKING RECYCLING TO NEW HEIGHTS**

Maj Steve Sturmer, AFFTC 412th Test Wing, Access to Space Office, assembled a multi-agency test and evaluation team to author a test plan to evaluate the operational suitability of future reusable launch vehicles. He initiated this effort to ensure the lowest total ownership costs while maintaining the operational reliability and sustainability of future military space operation vehicles for the warfighter.

### SHOULDERING THE LOAD

Maj Mark Mahaffey and Capt Mike Keele, 46th Test Wing, conducted a live fire test of a modern Soviet shoulder-fired missile in December. The test involved the sled launch of the missile at a target designed to collect critical threat characterization data and represented the first-ever successful shoulder-fired missile warhead detonation with the harsh sled test technique. It was a major milestone for the Reserve-managed live fire project and confirmed the value of a building-block approach to testing. It also secured OSD Joint Live Fire funding for this industrially-funded enterprise. Maj Mahaffey and Capt Keele, also conducted a live fire demonstration of Stinger shoulder-fired missiles at the 2000 AFSOC World-Wide Tactics Conference. Dusk/night shots, overcast weather, and problems with the missile grip stock gave aviators insight into the limitations of this world-wide threat to operations. The AFSOC aviators also received hands-on training on Stinger training launchers. The 46th Test Wing also provided a SCUD missile launcher for display and instruction.



*Interaction of missile with a target*

### TACTICALLY SPEAKING

In addition, Maj Mahaffey from the 46th Test Wing-sponsored USAFR "Air Defenses Lethality Program" presented a briefing at the 2000 AFSOC World-Wide Tactics Conference on the loss of the Spirit 003 Gunship during Operation Desert Storm. He explained the findings from a reinvestigation and analysis of the incident, providing new insights into the terminal intercept of the assessed shoulder-fired missile, as well as wing structural failure mechanisms that led to loss of the aircraft.

## AFMC MISSION AREA #6: SUPPLY MANAGEMENT

**Supply management provides spare parts needed in war and peace.**

### THE FLAP OVER ACTUATORS ?????

MSgt Rand Williams spearheaded the OO-ALC Logistics Directorate's Leading Edge Flap Rotary Actuator (LEFRA) project. With help from other IMAs, he inspected 852 actuators, hoping to identify enough serviceable assets to sustain 35 unmodified F-16s that will eventually be phased out of the inventory. MSgt Williams recovered $1.4M in usable LEFRAs and cut $5000 in warehousing costs by condemning unserviceable assets.

### INVENTORY PURGATORY

CMSgt Edward Greiner formed a team of IMAs from the ICBM SPO to address a base-wide materiel control problem identified by the Inspector General. Many of the problems stemmed from recent depot closures and the transfer of equipment and supplies from one base to another, sometimes outside the supply system. The IMAs inventoried thousands of items and put the resultant data into the Materiel Processing System database used by ICBM Materiel Inventory Control personnel. Their actions allowed managers to account for materiel transferred from the previous depot and already paid for by the program.

## AFMC MISSION AREA #7: DEPOT MAINTENANCE

**Depot maintenance repairs systems and spare parts to keep the Air Force ready in peacetime and provides sustainment for combat forces in wartime.**

### TIGER TEAM TIGRESS

Col Janice Daniels, AFMC/LG, served as an advisor for the C-5 Tiger Team, a group tasked to evaluate the full spectrum of support for the C-5 weapons system. Midway through this project, the active duty Depot Operations Team leader was transferred, leaving a void that Colonel Daniels quickly filled. In this role, she led a 40 plus-member contingent to OC-ALC and OO-ALC. With top level responsibility for both the Supply Chain Management and Depot Production teams, her key task was to contact center senior leaders, identify concerns, and assure support for proposed recommendations.

## A NEW DIRECTION WITH MAPS

Capt Tom Keefer, as an IMA Maintenance Officer assigned to the Technical Repair Division of the Aircraft Directorate, OO-ALC, took charge of the Division's transition to the new Depot Maintenance Automated Planning System (MAPS). He developed and executed the implementation plan for computer architecture upgrades and software installation. His skillful management of this project ensured critical support to daily component repair work requirements and saved an estimated $540K in lost production hours. Capt Keefer also initiated a continuing support contract to fully integrate MAPS into the Division's avionics and structural component repair activities.

## BULL'S-EYE TROUBLESHOOTER

In FY 00, the ICBM System Program Office acquired a new workload to repair generators from a closing depot. During and after transfer, production was constantly behind schedule. When Lt Col Elise Pitterle, an OO-ALC/LM IMA, was tasked to investigate and identify the source of the problem, within a week, she identified documentation as the source of the problem and put an IMA team in place to correct the situation. The IMAs reviewed and corrected every work control document for the generator workload. Managers can now print correct documents in a timely manner, a prerequisite for on-time maintenance and, most importantly, satisfy customers.

## GO FAR WITH ABDR

How do you manage worldwide mobility qualification training for nearly 20 IMA Aircraft Battle Damage Repair (ABDR) engineers who live all over the United States, are responsible for battle damage repairs for both the F-16 and A-10 aircraft, and support one active duty and three reserve Combat Logistic Support Squadrons at three separate operating locations? At Hill AFB, Lt Col Dave Schilling, as the new Lead IMA ABDR Engineer, developed and implemented a program designed to do that. By instituting a quarterly mandatory group training session for all engineers and structuring the agenda to complete a review of all required qualification knowledge elements about every 2-½ years, Lt Col Schilling insures each engineer is trained in current processes and is provided the technical engineering information necessary for designing aircraft damage repairs. They also receive courses on chemical warfare, technical order usage, mobility bag reviews, program documentation, and laptop and digital camera use in the field.

## LEARNING THE BASICS

MSgt Robert Kesl, OC-ALC, Quality Division (OC-ALC/TIQ), served as the lead auditor for the Back to Basics program, a quality initiative designed to reinforce the use of Technical Orders (TO) and bring the Center's 184 TO Libraries into compliance with AF instructions. With 20 years of experience as a unit self-inspection chief and TO monitor, he evaluated the condition of hundreds of files, made recommendations to correct discrepancies, and established a follow-on training program.

## A 'STA' OF EXECUTION

On 25 Feb 00, operational KC-135s were grounded because their stabilizer trim actuators (STA) were overhauled with substandard ratchet gears. Lt Col James Harper, OC-ALC/LAP, managed an OC-ALC "war room" to ensure that all aircraft were flying again in minimum time. He coordinated the manufacture of new ratchet gears at Tinker AFB and then sent the affected STAs to OO-ALC to have the gears replaced. Due to Lt Col Harper's judicious management of the repair process, all C/KC-135 aircraft were flying with newly overhauled STAs by Sep 00.

## LOOKING A GIFT HORSE IN THE MOUTH

Maj Dawn Harden, a C-5 SPO contracting IMA at Robins AFB had to stand on a well-known axiom: "There just isn't a right price for the wrong product." The products were critically needed wing pylon fittings for C-5 aircraft maintained at the ALC. $27.3 million parts were offered at no cost to the government from a previously terminated contract. By accepting the parts, the government would also assume full liability. Could these "terminated" pylon fittings handle the stress of some of the world's largest engines? After coordinating with legal personnel, technical representatives, and the original contracting team from SA-ALC, Maj Harden made the difficult decision to reject the proffered pylon fittings.

### FILES ACROSS THE MILES

Maj Jesse Christy, WR-ALC/PK, researched over 50 files at SA-ALC and closed out 23 Unliquidated Financial Obligations valued at $53,000, doubling the usual progress in this area and reducing file transfers necessitated by the impending BRAC closure of the base. At WR-ALC, he researched an additional 90 files, preventing premature closing on some and validating others for litigation, claims, and settlements. He also identified $137,000 that could be cleared and closed and located some funds that were available for re-use. Maj Christy's projects were absolutely essential not only for BRAC responsibility transfers, but also for the government-wide contract closeout effort associated with the shut-down of the legacy MOCAS financial database.

### BIRD STRIKE TO BIRD SPARE IN RECORD TIME

Maj George McHutchison, an IMA Aircraft Battle Damage Repair engineer at WR-ALC, led a nine-person maintenance team to Honduras to recover an AFSOC C-130 Combat Talon II aircraft that had sustained major structural wing damage as a result of a bird strike. He expertly assessed the damage, developed a repair plan, and obtained the necessary resources, in spite of the austere conditions. His team completed the permanent repair to C-130 in six days, returning it to fully mission capable status in record time.

### ON THE MOVE

AMARC IMA MSgt Matthew McDonald orchestrated the manpower, vehicles, and resources necessary to relocate over 3,000 Individual Material Readiness List items from an aging storage facility to a newly built supply warehouse. These critical Navy equipment items were moved with no loss of mission effectiveness and 100 percent inventory accuracy.

## AFMC MISSION AREA #8: INFORMATION MANAGEMENT

**Information management provides network services and data sharing to make sure customers have the right information anywhere, any time, on demand.**

### FIREWALL FIREBALL

How secure is your firewall? Maj Teresa O'Donnell, a research scientist in AFRL/VSB, offered to answer that question when she volunteered for a special assignment with the 66th ABW Information Systems Support Branch, Hanscom AFB. She initiated a software project to extract configuration information from their Sidewinder Firewalls and link it to validated user requests. When she learned that is was not possible to export the configuration information from the existing format into a Microsoft Access database, she designed and programmed a translator in C to parse several key configuration files and generate Access database format files. She also generated the first Access database for one of the base firewalls.

### RAPID RESPONSE

Maj Hobart Combs and Capt Jim Roy, ASC/HP, worked with the Wright-Patterson AFB security forces to provide modern internet-based tools that improve the security forces' emergency response capability. The reserve team developed an automated internet building locator system that has been incorporated into the security forces dispatcher emergency response procedures. The locator system provides building data faster and more accurately than the previous manual tools. Future enhancements will include alarm locations, building access routes and optimal vehicle response paths.

### GEOSPATIAL SYSTEM MAPPED OUT

Lt Col Brian Kowal, an IMA assigned to the ASC Information Technology Directorate (ASC/HP), was selected to chair the new Geospatial Information System (GIS) IPT at Wright-Patterson AFB. The IPT was chartered to develop a GIS that will "provide accurate, secure and timely geospatial information to the Wright-Patterson AFB community and other authorized users." Maj Jane Sessions developed a web site to disseminate GIS information in support of the IPT.

### STRATEGIC PLAN STRATEGIZED

Lt Col Steve Hocking, ASC/HP, led a team of reservists in developing a Geospatial Information System (GIS) strategic plan for Wright-Patterson AFB. The plan incorporates the latest evolutionary acquisition concepts and relies upon an incremental development approach for the GIS. Three strategic action plans have been completed and two are being implemented.

## REMOTE ASSIGNMENT

A team of Wright-Patterson AFB IMAs, led by Maj Charlie Van Druff, developed and validated procedures to allow remote support of the AFRL Tech Connect program. Maj Van Druff's team developed a process allowing Tech Connect Team members to facilitate contact without being physically located at the office. The off-site support process required integration of off-the-shelf software with remote network access and security procedures. This new process allows dispersed team members to support the team, a critical capability during contingency or wartime operations when USAF personnel require technical information to keep aircraft flying.

## STORAGE SHORTAGE

SMSgt Kenneth Earl Thurmond, WR-ALC/LY, volunteered to augment the Technical Data Distribution Facility during a recent manning shortage. He packed and destroyed over 75 tons of obsolete TOs. He also identified TOs that have a low requisition rate and deleted all but two copies of each. His efforts freed up enough storage space for the C-17 aircraft TOs that are to be maintained at the facility.

## BOOTCAMP BY THE NUMBERS

Maj Kerrie Schieman from ASC's Comptroller Directorate (ASC/FM), revamped the Center's Cost Bootcamp, their primary training vehicle for new cost analysts. She updated nearly the entire curriculum including 60 briefing charts.

## GAINING TRAINING

Maj Cassandra Robinson , ASC/FM, surveyed existing Integrated Baseline Review (IBR) training materials across four of AFMC's centers. After analyzing and comparing AFMC-wide practices in IBR preparation, she developed ASC training criteria. She also simplified and consolidated IBR best practices into a common approach for the Command, saving over $25K in staff salaries. In addition, Maj Robinson provided a new, integrated set of Earned Value Management System (EVMS) tools to enhance integrated program management and updated the EVMS Survival Guide, now in its fourth printing, to reflect the changes.

## STIMULATING SIMULATING

Maj Mike Menser, Simulation and Analysis Facility (SIMAF) at Wright-Patterson AFB, provided technical support to the Joint Strike Fighter (JSF) virtual analytic efforts. As a SIMAF Team pilot, he brought his expertise to bear in the air-to-air and air-to-surface combat simulations. These simulations and analyses directly supported development of the JSF Operational Requirements Document and greatly accelerated the development of the JSF concept of operations. Additionally, Lt Ronald Sharek, also assigned to the SIMAF, rehosted the JSF "man-in-the-loop" simulator to the Linux operating system. He converted older software components to C++ to conform with the program code base, to include over 76,500 lines of code in 573 source code files.

## MASTERS OF THE WEBMASTERS

Maj Eric Smith and Lt Col Tom Leverette, 88th Communications Group, are leading efforts to ensure active duty webmasters are trained to exploit Internet and Web technologies and resources at Wright Patterson AFB to meet mission requirements. They developed two new courses to address advanced Web site development techniques, new AF information assurance policies, and web-server administration guidelines. The courses provide students with an interactive learning experience.

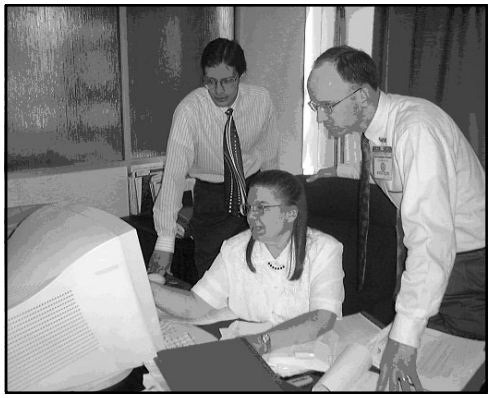
## OH SAY CAN YOU SEE OSS&E

Col Mark Miller, AFMC/EN, is leading a Command-wide IPT on data system needs associated with the recently published AFMCI 63-1201 on Operational Safety, Suitability and Effectiveness (OSS&E). The instruction requires Single Managers and Chief Engineers to be responsible for the OSS&E of weapon systems and end items in the field. Col Miller's IPT will identify data and data system deficiencies that will drive system upgrades to support the AFMC Single Managers and Chief Engineers.

# IMA SPECIAL ASSIGNMENTS

### INTERNATIONAL LAW

Two AFMC/JA reservists served active duty tours in support of the international offices of AFRL's Air Force Office of Scientific Research. Maj James King served in London, England, at the European Office of Aerospace Research and Development (EOARD), and Maj Kacie Haberly served in Tokyo, Japan, at the Asian Office of Aerospace Research and Development (AOARD). While at EOARD, Maj King provided annual ethics training for assigned personnel, advised program management personnel on contract ratification issues, assisted in the resolution of an intellectual property issue, and advised on an off-duty employment matter. At AOARD, Maj Haberly provided annual ethics training and procurement integrity briefings to the staff, and resolved several legal issues pertaining to the allowability of costs on certain contracts, proper funding for conference fees, and several travel-related issues



### LAYING DOWN THE LAW IN BOSNIA

In recent months, JA has provided legal expertise to help the Office of the High Representative guide Bosnia-Herzegovina establish a democratic government, and ensure the new government has the legal mechanisms to govern at local and national levels. Maj Derek Hirohata, an AFFTC IMA became the first JAG deployed to Northern Bosnia where he served as the Brcko element senior JAG. He assisted the Brcko Law Revision Commission through judiciary, police, criminal procedures and property law implementation, and was instrumental in bringing back the rule of law to the district.

### ALL'S WELL THAT ENDS WELL

"Chan Chen" is Mayan for little well. Installing little wells in rural northern Belize is how Col John Burroughs, AFRL's senior IMA, spent his summer vacation. He joined a 15 person team that included his wife and two daughters for a mission trip to northern Belize in Central America. He completed the installation of water wells at a mission church in Chan Chen and at the Trinity Presbyterian Church in Patchakan,and taught village leaders basic engineering fundamentals for well installation and trouble-shooting techniques.

### A TWISTER OF FATE

On 20 September 2000, at approximately 1930, a bizarre F4 twister hit 12 miles southeast of Wright-Patterson AFB without any warning. The tornado created extensive damage over a five-mile corridor. Col Frederick Whitican, SOF SPO Senior IMA, and his family worked for several days in the disaster relief effort. The evening of the tornado, he helped neighbors secure broken windows and clear trees and branches so utility and relief crew trucks could access the street. Then the family transferred their efforts to their church, which had suffered severe damage.

### LOGGIES STUDY AIR WAR OVER SERBIA

Lt Col Jim Hoelscher of HQ AFMC's Logistics Plans Division was the focal point for compiling AFMC Logistics "Lessons Learned" for the Air War Over Serbia (AWOS). Based on his experiences while deployed to USAFE, he was also chosen to represent AFMC/LG at the final editing of the CSAF-directed AWOS One Year Report.

### DRINKING GREEN'S WATER

Lt Col Zollie Green designed the drinking water system for the new Welcome Center at the Congaree Swamp National Monument in South Carolina, where he is working with the South Carolina Army and ANG who are constructing the Center. The project had the distinction of being written up in the publication, *THE CIVIL ENGINEER – UNITED STATES AIR FORCE.* Lt Col Green designed the drinking water well and distribution system, saving approximately $4,000 in Professional Engineering Services.

## HOME IS WHERE THE WORK IS

Lt Col Rodney Ross and Maj Vincent Bugeja with their civilian counterpart, Gregory J. Humphrey, ASC/HR, planned, researched, developed and implemented a pilot telecommuting program. Through extensive research, they documented the cost savings achieved, increased employee productivity, and improvement in employee job satisfaction and morale. They directed the formation of a cross organizational team to identify and resolve issues concerning Legal, Security, Communications Connectivity, and Safety matters. The six-month Pilot Telecommuting Program received approval from the Center Business Area Board and was implemented on 1 April 2000.

## HISTORY IN THE MAKING

Maj Michele Williamson, ASC/HO, wrote an extensive history of early Stealth technology at Wright-Patterson AFB. The history includes the transcripts of interviews with many of the Stealth pioneers. She highlighted personal vignettes, while exploring the management techniques, obstacles and successes of the Have Blue, F-117, Tacit Blue and early B-2 programs.

## WAR GAME NO "BORED" GAME

Eight of Hanscom's IMAs were among 100 members of the Navy, Marine Corps, and Navy and AF Reserve who participated in a two-day exercise called "Island Guard" at the Naval War College. "This was the first time 'Air Force guys' played 'Air Force guys' during a Navy war game at the Naval War College," said Maj Juan Gaud, ESC Integrated Command and Control SPO. Other members of the Hanscom team were: Lt Col Emanuel Lindo, ESC Integrated Command Control Operations Officer, Lt Col Joe Eshleman, ESC Intelligence, Surveillance and Reconnaissance Integration System Program Office, Majors William Derosier and Steve Jacobson, ESC Command and Control Unified Battlespace Environment Office, and Maj Elise Hedglen and Capt Mike Nickerson, ESC Intelligence Office.

*Lt Col Chin*

## IDENTIFICATION FRIEND OR FOE OR ALIEN?

Two IMAs from SMC, Lieutenant Colonels Art Chin and Paul Geiger, operated the Enhanced Intelligence Data Analysis System for Spacecraft (IDASS-E) during Joint Expeditionary Forces Experiment 2000 (JEFX 2000). IDASS-E, an advanced tool that permits an operator to identify spacecraft based on imagery collected from the ground, was introduced at JEFX to assess its utility to the warfighter as well its readiness for deployment.

*Lt. Col Geiger*

## SPACE CASE

SMC Majors Starla Carroll and Greg Wilson and Capt Don Ferguson provided both the operator and assessors for the Space Based Radar demonstration during Joint Expeditionary Forces Experiment 2000 (JEFX2000). This demonstration employed an airborne radar collection system that simulated a future space based radar satellite. Their efforts provided a wealth of information for both warfighters and visitors regarding the potential of this system. Capt John Wong, assigned to the SMC Planning and Development Directorate, also supported preparation for JEFX 2000 by developing assessment criteria for Discoverer II applications.

## FUEL FOUL PLAY

Maj Chris Belanger, AFRL/PR, conducted a critical investigation in support of US forces deployed to Kosovo. When US Army personnel reported two helicopters with suspicious contamination in their fuel systems, he developed a plan to pinpoint the cause and appropriate action. Maj Belanger and his team tested the suspect fuel samples, identified the likely cause of the contamination, and ruled out sabotage. He made maintenance recommendations and directed random monitoring and fuel sampling of other deployed helicopters for a 30-day period.

## BRIDGING THE GAP

While serving as Acting Direction of Munitions between commanders, Col Mike McClendon, AFRL/MN, prepared the directorate for an AFRL Crisis Action exercise. He trained the command section, division chiefs, deputies and tech directors on procedures detailed in the Crisis Response Operating Instruction during to respond to warfighters' urgent operational needs in that major exercise.

## CAREER BROADENING

Col Janice Daniels, HQ AFMC/LG MA, and Col John Burroughs, HQ AFRL CC's senior IMA, teamed up to make operational and command experience available to AFMC reserve officers. Through her logistics counterparts in NAF and AFRC, Col Daniels introduced the concept of placing young AFMC majors in unit logistics positions. Col Burroughs took the opportunity to place AFRL's best in a unit program by quickly screening AFRL's 106 assigned majors, personally interviewing 15, and selecting seven to participate. Each officer's curriculum vitae were assembled and forwarded to Col Daniels who presented them at a Logistics Council meeting. In addition to providing career diversity opportunities, this program will help foster better relations between the IMA and Unit Programs. Col Burroughs has also initiated local contact with the 459th Airlift Wing at Andrews AFB to identify other areas of career diversity that might benefit S&T and acquisition officers.

## OPEN ARMS FOR OPEN SKIES

Maj. Frank Maguire. HQ AFRL/XP security expert, served as the chief for Escort Team B-3 of the 88th Air Base Wing's International Treaty Compliance Office (ITCO). The ITCO supports requirements incurred by the Defense Threat Reduction Agency. Recently, he escorted Russians visiting Wright-Patterson AFB under the Open Skies Treaty. He also provided technical expertise on security force communication equipment, command and control, deployment tactics and ground navigation procedures for the development of the Acoustic Remote Threat Detection system by AFRL/HECB. In addition, Maj Maguire coordinated the use of night vision devices at the USAF Defender's Challenge (Security Forces' annual competition).

## BACKLOG BLITZ

Lt Col Robert Orozco, HQ AFRL/XPTT, organized, recruited and led eight reservists in eliminating the TECH CONNECT office backlog. Over 65 technical requests were answered during this two-week surge session, eliminating 100% of the backlog. Three team members had no prior TECH CONNECT experience and were trained by Lt Col Orozco in minimum time.

## SUSTAINING TRAINING

Maj Terry O'Donnell, an AFRL/VS IMA, used her civilian expertise in computers and operating systems to fill a void in the active duty force at AFRL Det-3. When several enlisted airmen in the Communications-Computer Systems Operations career field could not be certified because there were not enough qualified active duty members available to certify them, Maj O'Donnell participated in a "Train the Trainer" course and then certified the Det-3 airmen on a majority of their core tasks. When she learned that several core training requirements could not be met with hands-on training at Hanscom, she located a nearby Combat Communications Squadron at Otis ANG Base and arranged for Det-3 airmen to visit the base during an exercise for training.

## SAFETY IS JOB ONE

Lt Col John Lilly, HQ AFRL/XP, prepared a weekly "Federal Register Digest" summary for dissemination to the Technology Directorates. This initiative provided a starting point for continued compliance with environmental, safety, and occupational health issues and improved information transfer. Lt Col Lilly also conducted Staff Assistance Visits to remote AFRL locations to promote environmental, occupational, radiation and safety awareness and encourage a compliance culture.

## IS THERE A NURSE IN THE HOUSE?

Under the leadership of Lt Col Janet Palanca, a contingent of ESC IMA nurses served as primary players in the Medical Agile Combat Support portion of Joint Expeditionary Forces Experiment 2000. The nurses participated in spiral development of the scenarios, and deployed to Nellis AFB for conduct of the experiment, contributing over 115 mandays of support.

### CUBEism

Majors Deneise White and Steve Jacobson, ESC/CU, completed Theater Battle Management Core Systems (TBMCS) training at the Command and Control Unified Battlespace Environment (CUBE.) Upon completion of their training, Majors White and Jacobson worked with their active duty counterparts at the CUBE and at the C2 Warrior School at Eglin to develop a long-range IMA training plan encompassing TBMCS.

### OH, GEE! IT'S THE IG

IMAs in the ESC IG Office satisfied a host of both readiness and compliance requirements. Maj Lynn Salley developed and executed quarterly readiness exercises in accordance with DoD, AF, and MAJCOM policies, directives and instructions. Maj Laura Barger's statistical review of FY00 complaint and investigative activities served as an invaluable trend analysis tool. Finally, Majors Kathy Auzenne and Matt Farr ensured Information Assurance compliance across ESC through on-site inspections, analysis and reporting.

## AWARDS AND ACHIEVEMENTS

### MEDAL AWARDED FOR COOL HEAD WITH WARHEAD

*Capt Drake*

In addition to his ASC SOF SPO duties, Capt Gary Drake provided direct support to four ACC 86th Fighter Weapons Squadron Air-to-Ground Weapon System Evaluation Programs operational tests and evaluation. As Test Range Director, Capt Drake used his operational T&E expertise to direct and train two active duty noncommissioned officers in target battle damage assessment and data documentation. He provided training on Mavericks, laser guided bombs, and global positioning satellite-guided Joint Direct Attack Munitions employed by combat units. He also discovered and secured an unexploded 300-pound AGM-65G warhead found resting within 150 yards of a test range personnel-staging area and was awarded the Air Force Commendation Medal for his leadership and safe disposal of the unexploded warhead.

### TOMORROW'S LEADERS TODAY

Maj Vicky Babb, a flight test engineer at Edwards AFB 418th Flight Test Squadron, represented AFMC at the second annual "Leadership Today and Tomorrow" seminar held in Washington, DC. The seminar focused on career and leadership issues in the Air Force Reserve. The forum provided an opportunity to interact closely with senior AFRC leaders, and to network with field grade officers from other career fields and bases.

### FRAMED

As a member of the USAF Art Program, Lt Col Pestana, SMC/XR, has been recognized as a leading aviation artist, with some of his paintings in the official USAF Pentagon collection. He has the distinction of designing eight Space Shuttle mission patches. In October 2000, Lt Col Pestana was recognized, along with other leading aviation artists, at a special reception and ceremony hosted by Secretary of the Air Force Peters and Chief of Staff, Gen Ryan.

*Lt Col Pestana*

**GOAL-ORIENTED**

Capt Joan Kane, a Reserve JAG attached to the AFRL's Information Directorate at Rome, NY, was chosen as a member of the AF Women's Soccer Team, after an intense three-week soccer try-out at Travis AFB. The team competed against the other services in a week-long tournament at Fort Eustis.

**CYCLING TO WORK**

A team of active force personnel and Information Technology Directorate reservists received a Cycle Time Reduction Award at the ASC Commanders Celebration of Teams Award Ceremony. The primary reserve contributors were Maj Greg Combs and Capt Jim Roy. Supporting reserve team members included Lt Cols Brian Kowal and Dale Ellis, Majors Steve Hocking, Jane Sessions, and Larry Nevins, and Capt Tony Castaneda, and Lt Greg Sharek.

**INSTRUCTOR IN MOTION – ONWARD AND UPWARD**

The students of Air Force Test Pilot School Class 99B chose Maj Mary Manning as the outstanding academic instructor for their class. She taught "Unaugmented Equations of Motion," a foundational class in the Test Pilot School Flying Qualities Phase curriculum. Maj Manning, a flight test engineer, joins test pilot Lt Col Steve Herlt as a IMA recipient of this award. As evidence of the outstanding academic support Edwards AFB IMAs provide to the Test Pilot School, seven of the last eleven graduating classes have chosen IMAs to receive this award.

***Maj Mary Manning***

**CONTRACT NEGOTIATIONS**

IMAs have taken the ASC Contracting Directorate (ASC/PK) by storm. Capt David Raper, ASC/GRK, enhanced contracting productivity by amending a blanket ordering agreement for emergency aircraft repairs. This reduced emergency repair contract turn around time by over half. Capt Jeffrey Heilman, ASC/YTK, performed in-depth research and analysis of Economic Price Adjustment clauses. His efforts resulted in a $2.6M final credit to the government. Maj George Champlain developed and implemented an electronic data encyclopedia that allows users to quickly locate multiple ASC data automation systems. Maj Dale Blum served as the IPT lead contracting functional addressing contract close-out, fund reconciliation, and reallocation in the Reconnaissance SPO. This effort attacked a close-out backlog of over 2800 contracts totaling over $20M in excess contract funds. This team won the ASC Cycle Time Reduction Award, resulting in millions of dollars of dormant contract funds being made available for use on current weapon system programs.

**HE'S A JOLLY GOOD FELLOW**

Col Larry Chasteen, an ASC/XP acquisition manager, has been selected as a Congressional Science and Engineering Fellow. He will spend the fellowship with the Congressional Research Service, the legislative research branch of the Library of Congress, in work pertaining to radar aspects of the National Missile Defense Program.

**AIR WAR COLLEGE COUP**

Lt Col Loraine Simard, OC-ALC Aircraft Production Division senior MA, was the first reservist to win Air War College's Lt Gen John M. Nowak Award. Not only was she one of seven reservists selected to attend Air War College in residence last year, she was also selected as Tinker's 1999 IMA Officer of the Year.

**RAISING THE BAR**

2Lt Paul Chapelle, an Eglin Special Forces IMA, was commissioned at the Academy for Military Science (AMS) in October 2000, at McGhee Tyson ANGB, TN. AMS is the commissioning source for Reserve and Guardsman. 94 of the 100 officer candidates were commissioned and Lt Chapelle had the highest academic test average, winning the Academic Achievement Award. Named a Distinguished Graduate, he was a finalist for the Reserve Officers' Association Citizen Soldier Award.

**COMMON FOLKS**

Col Sue Busler, HQ AFMC/DR, recognized as a IPT of the Quarter member in AFMC's Directorate of Requirements, co-chaired several inter-command video teleconferences on common systems requirements. She helped facilitate the general officer-level Common Systems Requirements Board (CSRB), formally documenting their recommendations and mandates for change. After the CSRB, Col Busler championed those mandates at AFMC Headquarters and AMC Headquarters, winning four-star commitment to process change and prompting the formation of an Air Force level IPT.

**WORLD LEADERS**

*Capt Baker is second from left in the front row*

The highlight of the year for Capt Tammy Baker, AFRL/VSE IMA, was attending the International Junior Officers Leadership Development Seminar in the Netherlands. She was one of 84 junior reserve officers from 12 countries who used their leadership skills to solve problems and accomplish tasks. Her team of ten quickly became known as the A-team as they learned to work together and successfully complete all field exercises. During these exercises, she also learned about coalition forces, NATO and the Partnership for Peace, and engaged in discussions about gender, joint force issues and conflict resolution in an international setting.

**GET A LOAD OF THIS**

Lt Col Jeff Loren, ASC/SM, supported the Next Generation Small Loader (NGSL) program as Project Management subfactor chief during source selection. He provided direct assistance to the SPD, other factor chiefs, the contracting officer, and legal advisors during preparation of the Request for Proposal. He compiled and presented project management subfactor summaries during the Initial and Final Evaluation Briefings to the Program Executive Officer. Lt Col Loren was also the focal point for preparation and coordination of the Proposal Analysis Report. Furthermore, he coordinated military air transportation for Source Selection Evaluation Team travel to the competitor's facilities. Review and evaluation of the two proposals culminated with the announcement of the $185M NGSL production contract award. For his efforts, Lt Col Loren was recognized as the ASC/SM IMA of the Quarter.

**MAN'S BEST FRIEND**

Maj Victoria Kocara, a SOF SPO financial analyst, and Casey, her certified therapy dog, were awarded the WPAFB Angel Award for providing pet therapy at the WPAFB Medical Center and in the community. The two were also awarded the Special Services Award from Delta Society® for their exemplary teamwork demonstrating the power of the human-animal bond as Pet Partners. ™

## SHORT AND SWEET

***Did you know...***

. . .Col Sue Busler, HQ AFMC/DRR, chaired a principle sub-group for the Joint DoD/FAA/NASA National Aging Aircraft Symposium in St. Louis. The conference attracted over 600 international leaders in government, industry and academia.

. . .Col Dr. Warrick Barrett, AFMC/SG, accompanying Mr. Tom Easterly, representing Subaru-Isuzu Automotive Inc., accepted the Employer Support of the Guard and Reserve State Chairman's Award at a DoD ceremony in Indianapolis.

. . .Capt Tony Johnston, HQ AFMC/XP, represented the command at both an AF and DoD-level planning meeting for next year's JCS exercise Positive Force 01.

. . .TSgt Shaunna Hunt was recognized by SMC's Airborne Laser System Program Office as the NCO of the Quarter for coordination, database design, and compiling data on every aspect of support equipment identified by Integrated Product Teams.

. . .Lt Col Ralph Hill, AFRL/HE, served as one of the Air Force Special Awards judges at the International Science and Engineering Fair held in Detroit, MI.

. . . Lt Col Paul Whaley, AFRL/PR, organized a group of international probabilistic structural mechanics experts to generate a plan for future high cycle fatigue probabilistic research.

. . . Lt Col Robert Bland, Directorate of Aerospace Fuels Management, SA-ALC, was a key organizer for the 2000 Petroleum Operation and Maintenance Managers Workshop and Exposition.

. . . Col Frederick Whitican, SOF SPO's senior IMA, was selected to support the C-130 Avionics Modernization Program Source Selection. Based on his unique blend of experience in both civilian and military acquisition, he was chosen as a key member of the Past Performance Assessment Group for the source selection.

. . . Capt Bob Collins, SMC Det 11, finalized the Space Missions Integration Office Impact Point Prediction (IPP) report for Air Force Space Command. As a key member of the IPP team, he analyzed several conflicting methods for predicting the impact point of a missile.

. . . Lt Col Joseph Brezovic, WR-ALC/LJ, a Logistics Program Manager in the Single Service Logistics Support Management Office, led a team in developing the request for proposal for the $2.3 billion contract, Intelligence Information Command & Control Equipment Enhancements. The contract supports Army, AF, Defense Intelligence Agency, and Navy/Marine units throughout the world.

. . . Col Lewis Jollett, 46TW MA, provided senior leadership and guidance to NASA's X-34 space plane development at the 46 Test Group, Holloman AFB. The X-34 is part of NASA's Reusable Launch Vehicle Development program.

. . . Lt Col William Babb, AFFTC's IMA was selected to attend the United States Army War College at Carlisle Barricks in Pennsylvania.

. . . Maj Steve Sturmer, AFFTC 412th Test Wing, participated in his ninth launch of the Pegasus air-launched, space launch system conducted on the Western Test Range in support of DoD satellite test missions.

. . . Capt Kurt Shigeta, an SMC IMA, updated the SMC Modeling and Simulation Database to include all engineering development tools, threat/survivability and management/budgetary models.

. . . AFRL IMA Colonels Walter Zimmer and Steven Schlasner served as acting Deputy Director of the Materials and Manufacturing Directorate during a seventy day interval between the retirement of the incumbent deputy and the arrival of the new deputy.

. . .Maj Dean Peebels, ASC/FBF, provided cost estimating support to ACC for light and medium lift helicopter concepts. Moreover, he assisted in preparing critical cost estimates for Defense Acquisition Board Milestones I and II.

. . .Maj Gregory Saunders, ASC/FM, converted the Joint Services Cost Oriented Resource Estimating (JCORE) contractor developed model into Microsoft Excel and incorporated it into government domain. This saved the Joint Strike Fighter program $200K in contractor support for the JCORE proprietary model.

…SMSgt Mike Anderson, Eglin AFB, developed a long-range plan to provide IMA support to the base fire department during difficult AEF deployment overlaps, thereby ensuring adequate manning and, ultimately, fire safety.

. . .Col Lewis Jollett, 46 TW, Eglin AFB, served as acting Commander of the 96th Air Base Wing during the incumbent's absence.

. . .Lt Col Stuart Heller, HQ AFMC/JA, conducted the first ever Article 32 Investigating Officer Course for Reserve Judge Advocates.

. . .Maj Bridget Brozyna, taught four lactation classes to 36 couples at the Hanscom Health and Wellness Center.

. . .Capt April Fitzgerald, a family practice physician at Hanscom, instructed an Advanced Cardiac Life Support course.

. . .Lt Col Michael Conlan, a Hanscom periodontist, organized and presented a three-day training session for dental technicians, satisfying their continuing education requirements, and saving thousands of dollars.

. . .Col Philip Meteer, 66 ABW ESC Project Manager for AF Mission Planning Systems, led a SPO team that focused on operational demonstration of the AF Mission Support System.

. . .Lt Col Burt Wadas, ESC/DI, served as the Combined Air Operations Center site lead at Hurlburt Field during the Joint Expeditionary Forces Experiment 2000.

. . .Lt Col Larry Dwyer and Lt Col Emanuel Lindo, ESC civil engineers, prepared the requirements document detailing the renovation of the Control Unified Battlespace Environment facility at Hanscom. The two have also reviewed the architect's design drawings and will eventually supervise construction.

. . . Lt Col Vita Eonta, HQ AFMC/DR, represented AFMC at the Acquisition Fundamentals Course Working Group at Lackland AFB, in preparation for her role as the AFMC Acquisition Training Representative.

**CONTACT INFORMATION:**

The AFMC IMA program is administered by the Office of the Reserve Advisor at Headquarters, AFMC, located in Bldg. 262, Rm. C-208, in Area A of Wright-Patterson AFB, Ohio. The telephone/fax numbers are: (937) 257-4227/4031. The mailing address is: AFMC/CCV, 4375 Chidlaw Rd., Ste 6, Wright-Patterson AFB, Ohio 45433-5006. For e-mail access, go through the Air Force Home Page (AFLINK) to the AFMC Home Page at **http://www.afmc@wpafb.af.mil.** The AFMC Reserve Corporate Board, composed of the Mobilization Assistant to the commander as chairman, the Reserve Advisor to the commander, and Mobilization Assistants/senior IMAs from each AFMC center, guides the command-wide program, in terms of policy, procedures and corporate philosophy.

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*Art by Lt Col Pestana*